THE EFFECTS OF PRESCHOOL ATTENDANCE ON SOCIAL EXPERIENCE WITHIN THE FAMILY

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ABSTRACT

This study investigated the effects of the transition to preschool on the social behaviour of three-year olds within their home setting. An attempt was made to maintain ecological validity by collecting data from naturalistic observations and coding within the constraints of the Harvard Social Abilities Checklist. Twenty-three subjects, selected on the basis of demographic similarities, were in two naturally occurring conditions: Group I (N=13) consisted of children about to commence preschool (playcentre) and Group II (N=10) consisted of agemates who, because of lack of available places, were forced to delay entry to preschool. A before-after design entailed observation of all subjects in their homes prior to Group I children commencing playcentre and a second home observation after six weeks preschool attendance. Group I children were also observed in playcentre after six weeks in the new setting. The major finding was to confirm an increase in peer interactions after preschool attendance which relates to earlier studies on the influence of daycare experiences (Bronfenbrenner 1979) and to identify differences in behaviours between settings at significant levels. There was a suggestion that type of setting may be less influential than the opportunities for peer contacts. A minor finding was that mothers were able to predict aspects of their child's behaviour in the new setting where they had a basis of prior experience but were less accurate when the predictions were about new situations.

CHAPTER I

INTRODUCTION

> *".... from an ecological viewpoint I suggest that the impact of daycare and preschool on the nation's families and on society at large may have a more profound consequence than any direct effects for the development of human beings in modern industrialized societies."*
>
> Urie Bronfenbrenner 1979, p. 165.

Parents, educators and clinicians all have an interest in gaining information about "real" behaviour in young children, and in the processes involved in their social development. Yet, after an extensive review of research and application in the area of socialization, Rheingold and Haskins (1978) were forced to query whether the numerous studies in this area had effected practice in the home or school at all. They concluded that a large volume of research had ignored the mutually interactive processes implicit in child-rearing and that researchers have failed to appreciate that social behaviour cannot be separated entirely from physical, perceptual and cognitive areas.

Bronfenbrenner (1974, 1977, 1979) has argued persuasively that traditional experimental settings (he uses the phrase "empty settings") differ in almost every detail from the real environment, and questions the relevance of research in such settings for real life. Until comparatively recently much of the literature about children's behaviour was dominated by analytic psychiatry and psychology (Bowlby 1958, 1969; Ainsworth 1967; Maccoby and Masters 1970). It can be claimed that there has been little data about children's actual behaviour as opposed

to behaviour observed in artificial situations. White et al. (1978) speculate that the failure to study the development of normal and better-than-normal developing children and the influences of environment, has prohibited the full development of a mature science of human growth. The inappropriateness of attempts by social scientists to fit their human subject matter into the mould of the natural sciences has been forcibly discussed by Kessel (1979).[1] He concludes that the importance of context in psychological functioning has become the major theme of recent developmental writing. Certainly, there has been increasing recognition that environmental context must always be accounted for, and that research conclusions can apply only to a small group at a particular time and may never be more widely applicable (Rheingold and Haskins 1978, Bronfenbrenner 1979, Baumrind 1980).

The 1970s witnessed a number of attempts to study the "processes" involved in the interactions of children with their worlds and the development of methodologies for recording and analysing actual behaviour by the area of early childhood development. The most noteworthy of these studies are probably those of Caldwell (1971), Clarke-Stewart (1977), and the Harvard Pre-School Project (White and Watts 1973, White 1978). Ecological psychology developed from an earlier interest in what Barker (1963) had termed the "stream of behaviour" and, as both Burton White and Bronfenbrenner acknowledge, has drawn upon Lewinian Field theory, Piagetian interactionism and ethology. Until recently most of this research has been confined to North America but Bronfenbrenner (1979, Ch. 8) outlines current application of ecological methods in cross-cultural studies involving six Western countries. Cochran (1977) and Gunnarson (1978) provide comparisons of child care and home care settings

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[1] He quotes S.H. White as suggesting the problem is one of "physics envy".

in Sweden on the social and emotional development of young children in the first of these studies to be reported. Within the New Zealand context Smith (1978, 1979) has been interested chiefly in dependency relationships and processes within the ecology of child care settings.

Bronfenbrenner (1979) has defined development in ecological terms as "a person's evolving conception of the ecological environment and his relation to it, as well as the person's growing capacity to discover, sustain, or alter its properties" (p. 9). Whenever a person's position in the ecological environment is altered as a result of change in role, setting or both, the behaviour at the time of change (or ecological transition) is of interest. "An ecological transition sets the stage both for the occurrence and the systematic study of developmental phenomena" (p. 27). The concept of transition is not confined to ecological psychology, for acceptance of development as a life-span process implies shifts in role or setting (in other words, transitions). In Western societies the socialization of young children tends to be contained within the family until the child enters a larger group context which, increasingly, is likely to be a preschool (Barney 1977, White 1978, Bronfenbrenner 1979, Kessel 1979). Research in preschools has been enormous and their role in enhancing social development has long been assumed but the effects of preschool attendance on interactions within the home setting have largely been ignored (Swift 1964, Hartup 1967, Beller 1973, Edgar 1975). However, recent writing suggests a growing recognition that information from such interactions could provide important understanding of children's social experiences (Murphy 1974, Cochran 1977, Golden 1978, Bronfenbrenner 1979, Smith 1979).

Bronfenbrenner has predicted: "The nature and complexity of the interpersonal structures available to, and engaged in by the child

in preschool settings effects her development as manifested by the nature and complexity of the interpersonal structures initiated or entered into by the child in other settings, such as the home and, subsequently, the school" (Hypothesis 25, p. 204, 1979).

The present study is an attempt to investigate possible effects of preschool attendance on social behaviour within the home, applying principles of ecological research as proposed by Bronfenbrenner. Observational checklists (developed by the Harvard Preschool Study) and responses by primary caregivers (mothers in all cases) allowed profiles to be built up for each of the 23 children included in the study. The preschool group (N=13) were observed at home immediately prior to commencing preschool and six weeks later were observed in both the home and preschool settings. A control group (N=10) were observed in their homes at approximately the same age and time intervals as the experimental groups. Mothers of the preschool group were asked to predict their child's ability to cope with three aspects of the preschool setting (prior to attending) and their responses were compared with comments of the preschool teacher after six weeks of preschool attendance.

CHAPTER II

LITERATURE REVIEW AND OUTLINE OF EXPERIMENTAL HYPOTHESES

1. THE SOCIALIZATION OF YOUNG CHILDREN

> "Child training the world over is in certain important aspects identical..... in that it is found always to be concerned with certain universal problems of behaviour. Parents everywhere have similar problems to solve in bringing up their children. In all societies the helpless infant, getting his food by nursing at his mother's breast and, having digested it, freely evacuating the waste products, exploring his genitals, biting and kicking at will, must be changed into a responsible adult obeying the rules of his society..... There is no clear evidence in any case that any of these basic problems are in fact absent from the lives of any people. Child rearing everywhere seems to be in considerable part concerned with problems that arise from universal characteristics of the human infant and from universal characteristics of the adult culture which are incompatible with the continuation of infantile behaviour."
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> (Whiting and Child 1953, pp. 63-4)

Socialization is the term used to describe the various processes by which children become part of their societies (the earliest and most universal of which are illustrated above). Although developmentally a realistic term, socialization is also a value-ridden concept, dependent upon the particular group or culture the child is born into. Thus Mussen (1979, p. 60) has defined socialization as..... "the process by which individuals acquire, from the enormously wide range of behavioural potentialities that are open to them at birth, those behaviour patterns that are customary and acceptable according to the standards of their families and social groups." An individual is usually accepted as well adjusted socially if he or she fits into the immediate reference group,

for it seems to be a basic premise that no part of development can take place in isolation. Bronfenbrenner has frequently stressed that so far no one knows of an alternative way to humanize children than to have them in extended and prolonged contact with adults of their species (1974, 1979).

2. AN ECOLOGICAL APPROACH TO DEVELOPMENT

During the past three decades ecological psychology has been recognized as a branch of the discipline of psychology. The influence of Barker and Wright (1949) and their colleagues led to an appreciation by many psychologists of the value of studying human behaviour and experience in their natural contexts, and of analysing human environments at a level more molar than that of the stimulus. In early ecological psychology setting as the basic environmental unit was brought under scrutiny, Barker viewing behavioural settings as self-regulatory systems. In tracing the development of his formulation of a theory of ecology Bronfenbrenner acknowledges the influence of Lewinian field theory with its emphasis on contrast, and offers the criticism that earlier ecologists such as Barker and Wright concentrated on process rather than content. Similarly, the limitation of ethological studies to direct observation, usually of one or two individuals in one setting, narrows their perspective and value. From Piaget's The Construction of Reality in the Child (1954) he gained a view, not only of the continuity of persons across settings but the realization of the relationship of events in different settings. Thus Bronfenbrenner (1977) describes the function of the study of the ecology of human development as relating "patterns of development to the enduring and changing environments in which people live."

Recent review articles indicate that the ecological perspective in much contemporary psychology is influencing a wide range of research, having in common close conceptual ties and an interest in direct, practical application of research findings (Elder and Rockwell 1979, Wicker 1979). Baltes et al. (1977) have claimed that studies of development, uninformed of the life course and historical context, have generated knowledge with an uncertain relationship to the actual lives of individuals. Bringing context in as a psychological variable has emphasized: (1) the significance of place, whether the family home, neighbourhood or the wider community; (2) attempts to chart the course of families with a focus on age differentiation in timing and the ordering of events; and (3) acknowledgement of the importance of historical time by concern with events, crises and social change (Elder and Rockwell 1979). The stress on context is evident throughout the literature of ecological psychology and will be discussed again in relation to the study of child development.

The influences of related disciplines, particularly sociology and anthropology, are apparent and important in any analysis of context. Ethological methods, originally developed for animal studies but adapted to study human development, have also been important for the development of an ecological methodology (Blurton Jones 1972, McGrew 1972, Charlesworth 1973, P. Smith 1974). The study of humans from an ethological viewpoint is a comparatively recent development from the study of nonhuman primates, and Smith stresses the tentative nature of the research. He does, however, suggest that "although cultural variation is considerable, there is growing evidence that many kinds of human behaviour - such as non-verbal communication (e.g. gestures, facial expressions), social development (characteristic behaviours in attachment, exploration, play and aggression), and social organization

(e.g. all male groups, incest taboos) - have cultural invariant aspects or bases upon which cultural variations are imposed" (p. 93). He believes that to refer to "species-specific" behaviour in the case of humans is realistic if the universal aspects are identified and if cultural variations are identified, and some explanation (for such variations) made.

Blurton Jones (1972) suggests that the aspects of ethology of most use in the study of human development are those concerning the distinctions made between causation and effects of behaviour (leading to its survival value) and the distinguishing of these from the history of the behaviour during development (p. 14). Earlier he quotes the comment of Konner that "behaviour as a child must be adapted towards survival as a child, as well as towards the acquisition of information" (P. 9). The emphasis in human ethology on child study may be partly expediency (availability of groups, experimental naivety) but the environmental lability of the young and their relative lack of complexity are also important. Studies have tended to focus either on the area of mother-child interactions or on child-child interactions (usually children under six years). Because of an interest in adaptation to particular life settings human ethology is characterized by prolonged observations in naturally occurring situations, enabling the categorization of the major types of behaviour and identification of any causal factors (and usually employing a number of measures to check what the experimental variable affects and how it does it). The influence of ethology is particularly apparent in the current interest in interactionism, evident in journals such as *Child Development and Developmental Psychology*. The lessening of distinctions between ethology and "mainstream" child psychology is apparent in research discussed in Parts 4 and 5 of this chapter.

Bronfenbrenner has pointed out that traditional laboratory situations have often failed to take into account the social context in which a child may live, to the extent that he claims: "much American developmental psychology is the science of the behavior of children in strange situations with strange adults" (1974, p. 3).

Ross, Kagan, Zabzo and Kotelchuck (1975) systematically compared laboratory and home settings in a replication of a "strange situations" experiment (Ainsworth 1967) with two groups of matched infants (12-18 months). Although children were upset in both settings when left with a stranger, they cried three times as long in the laboratory as they did in the home. In a play session immediately following play activities with mothers in the laboratory decreased two times as much compared with children in the home setting. Results indicate the influence of setting on infant behaviour, supporting the view that methodological attention must be given to the context in which behaviours are observed and that limits of generalizability across settings should be specified. Baumrind has stated: "By constructing artificial social contexts, experimenters introduce a deterministic bias into their studies. Laboratory methods construct situations and contexts for persons and then assess how they respond to these extrinsically constructed situations, whereas persons in their natural settings typically construct or select their own social worlds among the options available" (1980, p. 647).

Bronfenbrenner (1979) notes that natural interactions frequently involve more than two participants and rarely take place in social isolation. "Thus in the family, the daycare centre, preschool, play group, school classroom or neighbourhood, (a) there are usually more than two people; (b) the child invariably influences those who influence him; (c) the other participants are not strangers but persons who have

enduring roles and relationships vis-á-vis the child; (d) finally, the behaviour of all these persons is profoundly affected by other social systems in which these same persons participate in significant roles and relationships, both toward the child and each other" (p. 3). Although believing that much developmental research lacks ecological validity Bronfenbrenner makes it clear that: (1) ecological validity does not rule out experimental manipulations provided enduring aspects of the child's environment (especially "significant persons") are involved and that activities are meaningful to the participants, and (2) laboratory studies are of importance for other aspects of development, such as biological research. Not only should there be a focus on the context and processes of a setting but on the inter-relations *between systems* as critical to the child's development.

For Bronfenbrenner (1974, 1977, 1979) the form of an experimental ecology of human development is: "the progressive, mutual accommodation throughout the life span, between a growing human organism and the changing immediate environment in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded..... The ecological environment is conceived topologically as a nested arrangement of structures, each contained within the next" (p. 514). The structures or systems are viewed as progressing in generality and complexity. The most immediate is the microsystem which concerns the relation between the person and his or her immediate setting such as the home, school or work and the other persons participating in that setting. Superimposed on the microsystem is the mesosystem which concerns inter-relations between the various microsystems, and exists within an exosystem of social structures influencing the immediate settings of

the individual (such as mass media, government agencies, the distribution of goods and services, the world of work, etc.) His final system is the macrosystem which includes the whole network of cultural patterns and ideologies, the economic, social, educational, legal and political systems all of which are represented in the micro-, meso- and exosystems.

Bronfenbrenner has expressed the principal objective of the ecological experiment as being the discovery of the processes occurring within and between systems in relation to the developing individual rather than the direct testing of hypotheses, and consequently the principal data trends are likely to be interactions. The emphasis is on what is perceived, desired, feared, thought about or acquired as knowledge, and how the nature of this psychological material changes as a function of a person's exposure to an interaction with the environment. Development is defined as the person's evolving conception of the ecological environment and his or her relation to it as well as the person's growing capacity to discover, sustain or alter its properties (p. 9).

The same principles apply within and between systems, thus the capacity of a setting such as preschool to function effectively as a context for development is seen to depend on the existence and nature of social interconnections within the mesosystem. The term ecological transition is used to describe the point where a person first enters a new serting. The most basic type of transition occurs when a person moves from participation in a single setting to participation in more than one setting (multi-settings) as happens when a child begins daycare or preschool and is introduced into the wider systems of society. These ecological transitions are developmentally important, for they almost inevitably bring a change in role and in expectations for the behaviour

society associates with that role. Each transition is both the instigator and the consequence of developmental processes and may be regarded as a measure of developmental validity, for any demonstration that change has carried over to other settings seems a useful indicator.

The person moving between settings is described as providing the *primary link*, but supplementary links may be provided. Thus, in the case of a child commencing preschool or daycare, supplementary links might include parental involvement in the programme or the child bringing home children from the preschool. The child entering preschool will usually be accompanied to the new setting by family members, and an older sibling may attend (or have attended) the same group. Bronfenbrenner believes that such prior intersetting linkage, communication and knowledge is "critical" if transitions are to be satisfactory (p. 210). He concludes that the available evidence appears to point to a trio of settings involving home, school (including pre-school and daycare) and peer groups as the ecological transitions and intersetting connections having the greatest impact on development in childhood (p. 236).

Bronfenbrenner has, in The Ecology of Human Development (1979), provided the basis of present approaches to an ecological study of development. Crucial to his view is the recognition that the properties of the environmental context within which research is conducted influence the processes that take place and therefore the interpretation and generalizability of research conclusions. The importance of "interpretation in context" has been recognized by other developmental psychologists such as Baumrind (1980), Belsky (1981), Caldwell (1974) and Kessel (1979).

To paraphrase Belsky, the ecology of infancy and early childhood makes a narrow focus on parent-child interactions no longer acceptable.

Such experience must be examined from the perspective of the family system, including the marital relationship and sibling relations. The family also needs to be seen in relation to the wider ecology referred to by Bronfenbrenner. Belsky concludes, "Such pursuit should thoroughly re-vitalize the study, and enhance our understanding, of early human experience" (1981, p. 19).

3. SOCIAL COMPETENCE AND COPING BEHAVIOUR

Social Competence has been used as a term to describe the broad range of competence and personal social behaviours of developing children, and definitions tend to reflect particular theoretical perspectives rather than providing more than a modest agreement. The concept of overall "social competence" as something more than general intelligence has a long history as Anderson and Messick (1974) explain, but recent interest in preschool provisions for disadvantaged children and identification of those educationally "at risk" has led to a renewed interest in the topic. Zigler (1972) emphasized that gains in social competence rather than dramatic raising of IQs was the goal of programmes such as Head Start which "hoped to bring about greater social competence in disadvantaged children. By social competence is meant an individual's everyday effectiveness in dealing with his environment..... his ability to master formal concepts, to perform well in school, to stay out of trouble with the law, and to relate well to adults and other children." Similarly, Hess is quoted by Bruner and Connolly (1974) as defining social competence in terms of behaviour relating individuals to the institutions of the society in which they live, especially behaviours given priority in the adult world. Bruner and Connolly offer their own definition within the framework of competence viewed as

intelligence. It includes non-specific emotional skills such as self-confidence, which they claim involves learning that one can do things with some likelihood of success and not being afraid to repeat attempts if necessary.

In 1973 the United States Office of Child Development invited a panel to attempt to define the components of social competence in young children with the aim of facilitating the development and goals of future interventions. Anderson and Messick (1974), in reporting the symposium, draw attention to the value-ridden nature of any definitions of dimensions or goals for social competence (borne out by the above definitions). They describe seven conceptual distinctions that were faced in attempting to define the components of competence. The need to distinguish between context- and population-specific constructs requiring delineations of populations (sex, ethnic and social groups) and taxonomies of contexts relevant to the young child; the need to separate proficiency and performance, and maximum and typical performance; the need to recognize that variables may have different meanings at different levels of intensity or in their positive and negative ranges, and the dangers of taking often arbitrary labels too literally; the need to distinguish between positive components of social competence (the socially desirable behaviours) and the negative, obstructive behaviours; the need to identify classes of variables according to developmental trends, those increasing with maturity being easier to locate but others may decrease (e.g. impulsiveness), be cyclic or remain static and are consequently more difficult to measure; the need to take into account such differing developmental trends for variables as well as the need for repeated measures of the stage or direction of development; and finally, the need for relationships between programme goals for children and goals for parents to be made

explicit (pp. 287-8). Because of the orientation of the panel towards early intervention programmes, the 29 components of social competency arrived at are interrelated with intervention goals.

Although there is disagreement that all these goals are correctly included within the domain of social competence (O'Malley 1977, White 1979), both the careful rationale and the comprehensiveness of the list make Anderson and Messick's article important. The eclectic nature of the theoretical background (and all the statements are theory-based) is illustrated by the acknowledgement of the influence (among others) of Piaget, Guildford, Rapaport and Binet in the cognitive-perceptual areas; Rother, Sarason, Carl Rogers, Emmerich and Bandura in the personal-social areas; and Lewin, Kohlberg, J. McV. Hunt, Robert White, Bruner and Kegan in the areas of interconnection between cognition and personality. Even though it was not expected that future researchers would concentrate on all the components in any one study, White (1979) has pointed out that such a broad concept of social competence presents problems of definitional validity when attempts are made to measure actual behaviour (p. 180).

Goals of Social Competence in Young Children
(after Anderson and Messick, pp. 289-292)

1. Differentiated self concept and consolidation of identity
2. Concept of self as initiating and controlling agent
3. Habits of personal maintenance and care
4. Realistic appraisal of self, accompanied by feelings of personal worth
5. Differentiation of feelings and appreciation of their manifestations and implications
6. Sensitivity and understanding in social relationships
7. Positive and affectionate personal relationships

8. Role perception and appreciation (the rejection of stereotypes)
9. Appropriate regulation of antisocial behaviour
10. Morality and prosocial tendencies
11. Curiosity and exploratory behaviour
12. Control of attention
13. Perceptual skills
14. Fine motor dexterity
15. Gross motor skills
16. Perceptual motor skills
17. Language skills
18. Categorizing skills
19. Memory skills
20. Critical thinking skills
21. Creative thinking skills
22. Problem-solving skills
23. Flexibility in the application of information-processing strategies
24. Quantitative and relational concepts, understanding and skills
25. General knowledge
26. Competence motivation
27. Facility in the use of resources for learning and problem solving
28. Some positive attitudes leading to learning and school experiences
29. Enjoyment of humour, play and fantasy

O'Malley (1977) has provided a review of theoretical perspectives and resultant research on social competence in relation to preschool and early education and, although limited only to concepts that have generated classroom research, he divides research into three orientations: ethological, theories of structural personality, and social interactionist approaches.

Definitions of competence within a social theory approach emphasize the importance of being able to establish and maintain identities through the ability to take the role of the other, and by the possession of a variety of repertoires to facilitate the achievement of goals (Weinstein 1969, Bruner and Connolly 1974). As O'Malley indicates, exploration of the ability to take the role of others has included investigations of role taking, empathy, person perceptions and social cognition. Classroom research on strategies for handling different situations has found that the ability to provide alternative strategies and to analyse the consequences of behaviour (for instance, violations of rules) relate closely to teacher ratings of classroom adjustment. Social theory gives competence a third component, that is, the possession of adequate interpersonal resources which enable utilization of role-taking and strategy skills in different situations in an appropriate manner (in other words, the adaptiveness of individual goals to a particular setting). Generally, this component has received less attention than the styles used for achieving interpersonal goals (O'Malley, p. 40).

Most studies in the area of personality structure have paid little attention to competence and the characteristics associated with it. Interest has tended to centre on expectations for positive attributes or mature performance, which by implication are expressions of competence, using two-dimensional models such as those described by Baumrind and Black (1967) where factor analysis provided four clusters (Cooperative-Resistive, Affiliative-Disaffiliative, Assertive-Withdrawn, and Independent-Dependent). Schaefer (1975), who was instrumental in developing the circumplex model to portray relationships among a number of variables (based on data usually derived from ratings), refers to unpublished material on teacher ratings of adjustment which appear to

relate to the areas defined by Extraversion, Low Hostility and Task Oriented behaviour (pp. 34-35). Emmerich's (1971) investigation of affective and social development of 500 urban, disadvantaged preschool children as part of the ETS longitudinal study, located a Task vs. Person Orientation. His data supported the belief that change could be mapped on a circumplex model, with structural proximity appearing to govern change. A general developmental trend for a transition from withdrawn to outgoing behaviours was demonstrated although Emmerich has since speculated that the sector on the circumplex towards which change is directed may vary among children depending on their original location (O'Malley, p. 37). Studies, based on the circumplex and related to psychoanalytic theory, have demonstrated the interrelation of demographic and affective variables with classroom achievement (Kohn and Rossman 1973). Whereas the influence of demographic predictors (especially class and race) was as expected, the high relationship of social variables as a group to the outcomes of a variety of cognitive instruments had not been anticipated. Social-emotional and demographic variables together accounted for 2 to 2½ times greater influence than either variable alone. The social-emotional variables accounting for the greatest proportion of variance were Interest-Participation vs. Apathy-Withdrawal (Kohn and Rossman) and Schaefer's Task Orientation.

O'Malley labels the Harvard Preschool Project as an ethological study, although White prefers the term ecological psychology to describe what he calls the *process monitoring* of the stream of observed experiences and its interaction with the continuous stream of environmental input, using a methodology based on both ethology and social theories of behaviour (White et al. 1978, p. 66). The central purpose of the Harvard longitudinal study was to identify experiences

contributing to maximal development of competence in children from 0 - 6 (White and Watts et al. 1973). The first phase of the study involved a naturalistic experiment with 51 children (from a pool of 3 - 5 year olds already at preschool) who were separated into high and low (but without apparent pathology) groups, who were observed intensively over a period of eighteen months, providing 1,100 30-minute records of the activities of these children, largely in preschools but also in their home setting. From these data were selected the thirteen most talented and the thirteen least talented children, and a list of abilities which seemed to separate the two groups was compiled. These abilities were divided into social and nonsocial types, and only the former need be discussed here. White (1978) has claimed that "this ethologically based conceptual scheme is the strongest feature of our social competence assessment techniques" and expresses confidence in the general validity of the specific dimensions identified as components of social competence. The Social Behaviour Checklist recorded interactions with adults: seeking adult attention, using adults as a resource, expressing hostility or affection to an adult, engaging in role play, and expressing pride in achievement. Competent children tended to exhibit in relation to peers competitive behaviours, to express hostility and affection to peers and to lead and follow peers. Several of these interactions were coded as successful or unsuccessful, with positive outcomes being recorded more frequently with competent children, while negative success and hostility were more common among less competent children. Competency scores correlated with SES, and individual differences in total socres (based on home observations) corresponded to observed child-rearing practices which later led to an intervention

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[2]The manual for assessing Social Abilities was developed by Ogilvie and Shapiro (1978).

programme for effective child-rearing (White 1979). Although commenting only on the first stage of the study O'Malley agrees that ethological analysis combined with a psychometric approach "in the Harvard Preschool Project produced a useful definition of competence in terms of adaptive behaviours within classrooms and homes, such as successfully getting adult attention and utilizing adults as resources" (p. 32). He did express reservations about the vague definition of the original criterion on which children were assigned to the high or low competence groups prior to data collection and what he describes as the "arbitrary" combining of frequencies of observed behaviours into a total competency score, but concluded that the usefulness of the instrument and face validity override these criticisms.

Although adaptiveness is stressed most in the Harvard study O'Malley notes that in personality theory the adaptiveness to adulthood of social interactions is reflected in the dimension Use of Opportunities in the Classroom vs. Withdrawal from Opportunity (Kohn and Rossman 1973) and is represented in social theory where behaviour, to be competent, must be appropriate in the context. Similarly, he suggests that purposiveness is another term the three perspectives have in common; being given the greatest stress in social theory, but also being apparent in Schaefer's (1975) Task Oriented vs. Inattentive dimension, in Baumrind's Instrumental Competence (1970) and Shapiro and Ogilvie's (1973, 1978) attention seeking, utilization of resources, and competition for equipment and adult attention. O'Malley provides (pp. 41-2) a re-definition of competence focussing on the degree to which data tend to agree for constructs such as purposiveness, adaptability, flexibility (or varied strategies for reaching goals) and social analysis (of rules guiding social interactions and roles). He recommends a multitrait-multimethod matrix to enable an evaluation

of convergence and discriminant analysis of different instruments assessing multiple constructs, with the major emphasis on behavioural characteristics and developmental trends across settings for children of different backgrounds and sex. He also recommends an analysis of consequences of competence (such as achievement) using a predictive model including descriptions of settings, personality characteristics and behaviours underlying purposive interactions leading to experiments designed to produce competence. Although limiting his comments to research within educational settings, O'Malley's evaluation of the theoretical and research implications of studies of social competence leads him to a position that has much in common with advocates of a naturalistic, ecological approach such as that used in the Harvard study.

The Harvard Project, under the leadership of B.L. White, commenced in 1965 with an attempt to identify competent children, as an alternative preventive approach to the several intervention programmes then underway to assist disadvantaged children. Underlying the study was the belief that "*under the variety of early-rearing conditions prevalent in modern American homes*, divergence with respect to the development of educability and overall competence first becomes manifest sometime during the second year of life and becomes quite substantial, in many cases, by three years of age" (White 1972, p. 21). A conviction that the family is the first and foremost fundamental educator and an assumption of the major role of environment in development led to a focus on observations in home settings and the development of instruments to allow analysis. In Vol. 2 of *Experience and Environment* (1978) White provides an overview of other types of process analysis used to assess the relation of environmental factors to early development, detailing those of Clarke-Stewart and Carew as the only studies other than the Project observing in the home more than

twice (pp. 114-124). The Harvard Project used a range of tests including the Stanford-Binet and the Bayley as well as measures developed by the study to examine various tasks, such as intellectual and linguistic abilities, motor or perceptual skills and social skills believed necessary for fully competent children by three years. It was concluded from the earlier work (Vol. 1, 1972) that children developing well had by three acquired the general pattern of competency of high achieving six year olds and that ages 3-6 involve a consolidation of style. In the case of social competence Ogilvie and Shapiro developed the Social Abilities Checklist already discussed, which provides a basis for naturalistic observations of behaviours identified as relating to competence. Differentiation between social and non-social behaviour was designed to reflect the child's *purposes*: a social task was regarded as one where the child's main purpose is to create an effect on another person (a problem arises that the means of achieving a social task may be through a non-social skill such as language). White (1979) recognizes the limitations of the Social Abilities Checklist and discusses the difficulties in assessing social competency: "To conceptualize social competencies adequately, to identify *what* should be measured, is the first step. To assess a child in this area, to determine how to measure social competence is the second. A reliable, easy to administer, brief procedure would be ideal. The typical 20 to 60 minute procedure to assess intelligence or language or general development is based on such requirements. Unfortunately, we have not yet figured out how to induce an infant or toddler to demonstrate his leadership skills, his ability to use an adult as a resource, or his several other social competencies in such a manner. Instead, we have observed each child in his own home, 30 minutes at a time, on repeated occasions, recording behaviour as it occurs naturally. From such

behaviour we derive a score for social competence. Though we trained several people to use the procedure, we are not at all satisfied with it. First of all, it is expensive. And second, though our trainers have usually reported high levels of inter-observer reliabilities (better than +0.85), we believe that those levels are probably inflated by a less than ideal means of calculating reliability" (p. 120). Data on social competence in the third stage of the study, which involved training in parent effectiveness, was not published because of discrepancies between observers.

The second phase of the study involved 39 children, who on the basis of performance of older siblings, were predicted as likely to demonstrate an outstanding level of competence (either high or low). The primary purpose of the longitudinal, naturalistic experiment was to search for environmental factors playing causal roles in the early development of human competence (p. 15, 1978). Subjects were first observed close to their first or second birthdays and, in the case of social abilities, observed for 30 minutes at regular intervals over a 15-18 month period (the minimum number of observations was 27). The achievements of the 19 children studied from their first birthdays identified several experiences by 12-15 months that correlated at high levels (+0.76 to +0.93) with achievement at three years. Analyses were interpreted as showing that a rich social life (many social interactions) was likely to be associated with high levels of achievement and that social skills were the most fruitful area to identify lasting precocity or delay. Only two (of 39) children appeared strong socially but rather weak non-socially and the opposite was true for only another two. It was apparent that more lower SES children were in the upper social ranks than in the upper non-social ranks and, contrary to the data on linguistic and intellectual skills, no statistical relationship between

SES and social competence was found. A remarkably early divergence between the strongest and weakest children was apparent with the categories *using an adult as a resource* (p=.001) and *role playing* (p=.02) showing significant group differences and *expressing pride in achievement* (p=.08) approaching significance for the one year starters. For the children starting at two, *gaining attention in socially acceptable ways* (p=.005) was the only significant category with *pride in achievement* (p=.06), *role playing* (p=.06) and *using an adult as a resource* (p=.09) all approaching significance. (Because of the greater frequency of interactions with adults rather than peers and because peer interactions tended to parallel those with adults, data on pees was not published.) In the third phase of the study (White 1979), which involved a parent training programme incorporating assumptions on effective child-rearing based on this data,[3] a marked increase in the amount of live language directed at children was thought to explain the lack of association of total social experience with intellectual achievement. The introduction of a group of first-born children into this phase (all earlier subjects were selected on the basis of an older sibling's performance) complicates comparisons as it was found that first-born children had less need to procure attention or services from adults as mothers were (in both the experimental and control groups) more likely to be already attending to them or directing language towards what the child was focussing on than mothers of later-born children (p. 144). Overall, the ability to seek assistance from adults (procuring a service and/or gaining attention) appears particularly

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[3]Effective child rearers were seen as fulfilling three major functions: to design the child's world for maximum access and safety; to act as a consultant for the child; and to discipline or control the child (p. 157, 1978; pp. 89-90, 1979).

useful in determining how well an infant learns to use an adult as a resource.

White concluded that the first few months after a child's first birthday are important for the development of close social relationships, based on rich experiences provided either by parents or skilled caretakers, for the study found no support for the view that the child must spend all its time with parents to develop a satisfactory social life. From numerous observations in a wide assortment of home situations White and his colleagues were able to estimate that one year olds rarely spent more than 10% of their waking hours (about 70 minutes a day) in interactions with others. Of adult initiated interactions observed 60% involved stimulation of the child and 40% control, but these interactions occurred for only about 1 minute in 30. Again, although parents responded to overtures from their children not less than 75% of the time, this constituted no more than 2 minutes out of 30 (not including caretaking activities). Delayed responses were very rare, usually within 3 seconds of the child's overture, and, judging on following events, adults almost always accurately perceived the child's need and satisfied it completely about 80% of the time. Thus infants and toddlers spend 4 to 5 times more time involved in activities that do not involve adults or peers. What does appear important is the quality of the interactions when they occur. In acting as a resource for a child and facilitating what the child wants to do, adults must be interested in what the child is doing. Mothers who reared competent children were responsive but did not instantly answer the child's every request or whim. Children who do not have an adult near, who are rebuffed or who are "hovered over" have little opportunity for enriched social experience.

The high levels of competence (both social and non-social) in first-borns over later-borns, regardless of whether parents had received training in effective child-rearing skills or not, appeared to be related largely to observations that parents spent twice as much time with these children, directed more language towards them and were without the distractions provided by older children (White 1979). Whether first-born children retain this lead in social skills beyond the age of three and in settings outside their homes is of interest, as much of the previous literature has suggested that first children experience social and emotional difficulties (Martin 1975, Baumrind 1980). Unfortunately there is no indication that monitoring of the behaviour of these children is to continue.

Although the limitations of the Harvard Project's definition of social competency, based on a small population with a bias towards middle class values, are apparent it does provide some support for the importance of early experience on the rate and level of early development. The usefulness of the Social Abilities instrument and the current lack of alternatives tend to override valid criticisms of the scoring procedures as arbitrary (O'Malley 1977), and of its reliability which White admits is questionable (1979, p. 180). The subjective data collected through this type of study of "target" subjects and their families has provided many basic and useful facts about young children and what actually happens in their homes. There seems to be some validity for White's claim that "such information is of fundamental value in the construction of a science of human development" (1979, p. 177).

O'Malley (1977) has pointed out the pervasiveness of the adaptiveness theme, not only in the Harvard Study but also in social interaction and personality theory-based research on social competence.

Although acknowledging the contribution of R.W. White, O'Malley did not discuss his work on the basis that it was outside the scope of his article. In a much quoted article White (1959) expressed a belief that the ability to deal competently with the complex tasks of adulthood is the result of the processes by which a child learns to interact effectively with the environment. Although acknowledging the part played by maturation in development, he claimed "this part is heavily overshadowed by learning in all the more complex accomplishments like speech or skilled manipulation..... it is necessary to make competence a motivation concept" (pp. 317-8). White described the child's striving for an effective familiarity with his environment to gain competence or mastery as effective motivation.

Developing this concept Wenar (1964) explored the child's feeling about his/herself as an effective doer and the influence of parents with regard to such feelings. Wenar believed that naturalistic experimental settings were important to learn about children and their natural motivation to explore the world and strive for mastery of their environment, and suggested the term executive competence as suitable for naturalistic research. The components of executive competence consist of: the intensity of involvement in an activity, the amount of time spent on an activity, the level of persistence, and the degree of self-sufficiency demonstrated (measured by number, duration and intensity of spontaneous responses made to adults) (p. 336). Wenar predicted that a limited number of behavioural patterns would be used by a majority of children and that other behavioural patterns should be grouped together as deviant.

To explore this belief a pilot study (Hendrickson and Hansen 1977), using an instrument based on the components of executive competence, observed behavioural patterns of toddlers (N=37) with their

mothers in their own homes. The findings supported Wenar in that about 80% of the toddlers had a limited number of behavioural patterns and 20% displayed idiosyncratic patterns. Competent children had different ways of approaching their world, some through manual movement patterns, others through verbal patterns and a few through a visual regard or locomotion pattern. Background material collected on the children appeared to provide no explanation for differences in behavioural approaches. As the authors suggest, longitudinal information might show whether individuals change patterns to face new situations or whether this pattern develops into a lifestyle approach. It was observed that those children who seemed competent to explore with little (or no) mother-child interaction seemed to be free to be themselves and yet secure in the fact the mother was close, if needed, and that as the children developed new skills mothers tended to adapt by being less controlling.

R.W. White's view of the adaptive tasks and strategies used by the developing person to help deal with situations within their environments also considers what happens when elements of that environment change. At times of transition within the life cycle (such as the first experiences of preschool) changes in one part are likely to have considerable consequences in several other parts. Thus there is... .."always a little risk in newness, so what is required is a cautious approach allowing time to assess both the risk and the possibility of benefits" (1974, p. 59). The way individuals deal with changes in environmental conditions depends upon the coping strategies employed or their coping style.

One of the pioneers in the study of the development of coping behaviour, Lois B. Murphy (1962, 1974, 1976), believes that coping patterns can most readily be seen in confrontation with a new situation

which cannot be handled by reflex, habitual or routine actions. She places an emphasis on the coping process and the steps and sequences by which a child comes to terms with challenges or makes use of an opportunity. She defines adaptation as being the result of coping behaviour (it can also, of course, be the result of automatic or reflex responses), and competence as the skill achieved. Coping styles are seen by Murphy as being the outcome of predispositions in the child interacting with early and contemporary parental (maternal) handling with emphasis placed on the child's solutions and efforts.

Her investigations into coping efforts in early childhood (The Widening World of Childhood, 1962) as part of a broader longitudinal study (from birth to early adolescence) was not truly environmental as claimed, for the 36 preschool children (3-5) were taken out of their home situation and tested and observed in a special centre. Parents were not expected to be present and mothers' contributions were limited to interviews and the provision of anecdotal material. Not looking at parental interactions in a structured way appears to be a weakness of the study. White's central theme of coping as a transaction between the individual and his/her environment cannot be assessed without looking at the person in relation to that environment. But Murphy did place stress on studying normal development and each child in her study experienced at some time low points, where he or she was troubled or suffered from temporarily impaired efficiency, which she suggests are unavoidable and necessary components of normal growth. However, as each child became familiar with the study centre and the expectations associated with it differences in style became less obvious. Thus "as fast as children discovered what to do, they became more alike." The wider the range of coping devices the child had available, the greater the chances of success (and a lessened chance of frustration) in coping with a new

situation.

Murphy identified three kinds of coping style: in the first the child's own constitutional tendencies (sensitivity, activity and tolerance levels) predominated; in the second, what she describes as a confluence of constitutional tendencies and environmental influences moving in the same direction; and, finally, a more complex patterning where natural inclinations have been defeated and coping methods make it increasingly difficult for natural tendencies to be expressed (1962, p. 322). Unfortunately, in discussion of the basic determinants of coping style, aspects of behaviour that merely appear related are assumed without further evidence to have a relationship, and will not be discussed here. Murphy's study was important because of its exploration of a range of behaviours demonstrated by a cohort of children who were observed over a period of several years and for providing some insights into the complexity and organization of behaviour. The meticulous detailing of behaviour and suggestions about their implications have provided a useful precedent for recent studies of the interactions between children and their environments, even though the emphasis on an ego-psychology perspective may no longer appear helpful.

4. PARENT-CHILD INTERACTIONS

Within Western society there is a consensus that socialization is initiated within the family and that a close parent-child relationship is important for social development. Any further agreement about the ideal means of rearing children seems unlikely (Macfarlane 1964, Newson and Newson 1968, Bruner and Connally 1974, Minuchin 1977, Rheingold and Haskins 1978, Baumrind 1980). A recent article by Baumrind (1980) provides a summary of current thought on the interaction of child and

family in the socialization process,..... "by which developing children, through insight, training and imitation acquire the habits and values congruent with adaptation to their culture. At birth, a child may be viewed as a range of possibilities whose discrete potentialities are realized in interaction with the training contexts in which the child develops. Individuals become what they are in reciprocal interaction with the environment, and the crucial environmental context is the family. Thus the family in which a boy or a girl develops will limit or expand in important ways potentialities that can become manifest as socially useful and personally satisfying attitudes and actions....." (p. 640). She stresses the determining role of caretakers in the introduction of children to social roles, whether by conscientious effort or default.

A similar view of the impossibility of separating heredity and environmental influences, and the complexity of interactions between genetically determined potentialities and environmental forces is expressed by Mussen (1979, pp. 54-55). Further, it has been suggested that, just as the environment and its agents (parents, in early childhood) influence the child, the child's own characteristics also influence these environmental agents (Chess and Thomas 1965). They stressed the role of the child's own personality, including both internal and external influences, as determinants of personality development and as influences on their parents' behaviour and attitudes. Longitudinal studies have provided no simple answers about the continuity of individual characteristics over time, except that different children show differing degrees of personality stability over time and that there are often different patterns of correlations for each sex. Data suggest that both continuity and change are characteristics of living organisms and that it is not very useful to ask whether

basic personality is established by, say, 5 years (Moss and Kagan 1962, Bayley 1964, Macfarlane 1964, Yarrow 1964, Emmerich 1970). More recently Chess (1980) has concluded that development is a "fluid, dynamic process", with any continuity over time being the result of consistency within the organism-environment interaction. This active participation of children in their own development is evidenced, she believes, by the way that different children appear to possess, and maintain, different patterns of temperament and apparently to react differently to the same environmental influences.

These authors tend to share an interactionist, organismic view of human beings. The basic components of the organismic position have been described by Lerner (1976). Development is characterized partly by qualitative changes, governed by laws related to both the organism's heredity and environment, which interact to account for behavioural development. "A crucial and central component of the organismic position is that people themselves play an active, contributory role in their own development" (p. 16). This theoretical position is counter to that of learning theorists who tend to see all human behaviour as learned behaviour, the result of responses controlled by situation-specific environmental stimuli, which are in turn governed by the laws of classical and operant conditioning. Authors such as Bijou and Baer (1961) described human development as consisting of progressive changes brought about as the organism interacts with the environment. However, their use of the term interaction is limited to mean only that, in any interaction between behaviour and situation, a given response may be expected to occur (or not occur) depending on the stimulation the environment provides (1961, p. 1). In an attempt to investigate the relative contributions made by situations, persons or interactions in human functioning Bowers used analysis of variance methodology to

analyse eleven developmental studies (1973). He concluded that neither the situation nor the person alone could account for behavioural functioning but that the interaction of both internal and external variables needs to be accounted for. At the same time, Bowers acknowledged the importance of what he terms "situationalism" as acting as a necessary corrective to trait psychology.

Recent literature has emphasized the interactive nature of parent-child relations, replacing the previously prevailing view of parent behaviour as causing subsequent child behaviour. In a review article Barclay Martin (1975) criticises the indirect nature of much earlier research based on ratings of interviews and questionnaires administered to parents (and sometimes to children), often neglecting situational variables or generalizing about child-rearing practices from biased samples (such as the parents of delinquent or emotionally disturbed children). He is equally critical of experiments where the adult experimenter varied his or her behaviour and then measured any effects on the child (pp. 464-5). Although advocating more direct measures to provide a finer analysis of interactions, he warns that it is misleading to believe that direct observations are without bias. The effects of the observer's presence, the question of whether the sample of interaction is representative, and the method of coding employed are all examples of some of the difficulties inherent in direct observation. Although written from a specifically social learning approach the Oregon University *Manual on Observations in Home Settings* (1978) provides a useful review of the development of observational methods since the pioneering work done by the Barker group in the 1950s. Generally studies have shown only low levels of correlation between ratings based on interviews with mothers and observations of interactions, and many have shown discontinuities across

methods (Baumrind and Black 1967; Honig, Tannebaum and Caldwell 1968). Reid, writing in the Oregon Manual, concludes that parents are unable to provide reliable or valid reports of their children's behaviour. However, a study reported in the Manual indicated that although a group of mothers observed with their preschoolers were strongly aware of observer presence, no discernible effects on ratings of their own children or upon the children's behaviour appeared between observer-present and observer-absent conditions. Reid further concludes that there is a setting-specific observer effect which may lead to the acceleration of a small number of setting-relevant behaviours but the effects do not seem to habituate over trials. Of the studies of parent-child relations that Martin rates highly are those undertaken by Baumrind, who used both direct observations of interactions at home and in nursery school, and parental-child interview dimensions (achieved through cluster analyses). She attempted to identify parental attitudes and behaviours associated with competent behaviour in normal preschool children. Her findings suggested that parental practices that make demands on their offspring (intellectual, maturity, or socialization demands) and yet grant independence are associated with self-reliant child behaviours. Less reliant or unhappy children tended to be associated with parents who had less control and who were less persistent in enforcing demands. Analyses showed some sex differences, suggesting that girls more than boys required a certain degree of tension in their relation with a parent if they were to be assertive and independent in the nursery school setting. In a later study patterns of parental authority were investigated where eight families were identified as having one characteristic in common, i.e., that although the parent almost never *exercised control*, he or she seemed to *have control* (in that the child attempted to respond as he or she

believed the parent would wish). The families in these studies all tended to be well-educated and moderately affluent, and involved in the children's welfare even when the parent-child relationship was not warm. Incidentally, warmth proved unimportant as a predictor of competent child behaviours (Baumrind and Black 1967, Baumrind 1967, 1971). These studies show that patterns of parent characteristics have been identified as associating with patterns of child characteristics but, even accepting the smallness and bias of the population, they were unable to determine the relative contributions of individual parental measures. Bell (1971) has suggested that neglect of the child's contribution may have been due in part to methodological difficulties in discriminating the effects of participants, each reacting in turn to the other, as part of an ongoing process. Certainly, recent advances in coding and microanalyais have led to a marked increase in interest in family interactive processes as can be evidenced by current articles in journals such as *Developmental Psychology* (Belsky 1981, Borduin and Henggeler 1981, Baran and Jacklin 1981, Buss 1981, Clarke-Stewart and Hevey 1981, B. Martin, Maccoby, Baran and Jacklin 1981). One study demonstrates the relationship between activity levels of preschool children (N=117) and their level of interactions with parents of both sexes. Highly active children were found to have parents who were more physically intrusive and competitive with their child, than were parents of less active children whose interactions tended to be generally more peaceful. Unfortunately, as the author recognizes, the study failed to separate differences in parental activity levels independent of their children which might have allowed finer identification of child (or parent) effects (Buss 1981). The Baumrind studies recognized the need to separate the sex of child and that of the parent, for previous studies had found different correlates for the sexes on identical or

similar parental variables (Bronfenbrenner 1961, Bayley and Schaefer 1964). It is interesting to note that at the time Baumrind believed that the methodology used had dealt effectively with equivalence of dimensions across sex but that she now considers it necessary to focus on sex-related socialisation effects rather than "gloss over them as inexplicable or unreliable, as I did previously" (1980).

In the area of socialization there is considerable research support for the view that girls are more amenable to demands than boys, and the widespread reports of boys being more aggressive than girls at almost all ages may be related (Bronfenbrenner 1961, Martin 1975, Ritchie and Ritchie 1978). In explaining their finding of greater consistency in aggressiveness in boys (from infancy to adulthood) Kagan and Moss (1961) suggested differential responses from parents might be responsible, but attempts to observe such responses have been inconclusive. Results from several studies indicate that the opposite sex parent is seem as more benevolent, less strict, and more autonomy giving than the same sex parent, although mothers provide both more affection and more discipline than fathers (Martin 1975, Ritchie and Ritchie 1978). Belsky (1981) has reviewed studies of family interactions in infancy where fathers and mothers are both studied, and suggests that comparisons of parents' behaviour have fathers looking more like playmates and mothers more like caregivers. Buss' study of child activity levels found a marked contrast between father-son pairings of highly active children and other pairings which were characterized by hostility and impatience. Instead, fathers of highly active boys were frequently found to dramatize and make fun during interactions which tended to be positive.

After surveying the vast literature on the study of dependency and the various behaviours usually considered to show dependence in

children between 2-5 years (attention-seeking whether positive or negative, proximity-seeking, affection-seeking and help-seeking) Martin (1975) concluded that, although these behaviours do not correlate highly, it is important to separate the clusters of behaviours described as proximity-seeking from attention-seeking behaviours. He interprets proximity-seeking and protest at separation as indicating passive, fearful, introverted characteristics whereas attention-seeking appears to relate to aggressive, extroverted features (p. 488). The strong effects of dependent child behaviour on adult nurturant behaviour was demonstrated by Yarrow, Waxler and Scott (1971). Attention-seeking by infants was lower when adults manifested non-nurturant behaviour than with nurturant adults, and children with a higher frequency of help-seeking received less nurturance from adults (this was particularly so in the case of boys). A positive response to an adult contact was likely to lead to the adult initiating another contact more rapidly than if the child had not responded initially. (All adults in this study were female day-care staff.) In light of the general acceptance of the mother as the nurturant, caregiving parent most likely to attend to the child's needs, the results of a local survey of parents of four year olds indicated that both mothers and fathers (interviewed separately) reported their child as making moderately high demands for their attention, and one third of these parents (no significant differences between the sexes) reported paying attention most of the time, and half as paying attention sometimes (Ritchie 1979, p. 56). One must question whether <u>actual</u> behaviour would reflect such patterns. The ability of children to make their needs known to adult caregivers has been frequently identified amongst young children described as socially competent (B.L. White 1979, p. 139).

Sibling relationships, particularly ordinal birth position,

appear also to be significant regulators of children's personality and social behaviour. The sex of siblings and the spacing between them show the greatest effects, with marked differences being noticed where there is a gap of four or more years or siblings are of the opposite sex. It has been shown with some consistency that first borns (boys and girls) with younger male siblings are more dependent, conforming and affiliative than any other sex-birth order combination and there has been some evidence to suggest that behavioural problems are more common in male first borns. Generally, first borns are less likely to show adequate interpersonal relationships than later-born children (Martin 1975). Differential maternal interactions have been reported with first-born children both exhibiting more attention-seeking behaviour and receiving more social and physical attention in early infancy and preschool years (Hartup 1970, Martin 1975, Jacobs and Moss 1976, Mussen, Conger and Kagan 1979, Lahey et al. 1980). The effects of being first born appear to be more powerful than the effects of child-rearing training for mothers. B.L. White (1979) notes that mothers of first borns behaved in the style postulated by the study as being effective regardless of whether they were in the experimental or control groups. These children (aged 11 to 18 months) had less need to initiate or maintain contacts with their mothers than did later-born children, largely because mothers spent twice as much time with them as was spent with later-born children. This high level of contact usually involved more language being directed towards these children who had "markedly greater" language development than later-born children (p. 146). Differences in birth position and sex of siblings as the child experiences an enlargement of social contacts would seem to offer a fertile area for research. A recent study involving observations of 34 pairs of same sex siblings under 5 years concluded that sex affected

agnostic and prosocial behaviour but not imitation. Males displayed more physical aggression regardless of birth position, and older girls were found to be more prosocial in interactions than younger girls and both groups of boys (Abromovitch, Corter and Lando 1979). The inclusion of siblings in studies of interactions in home settings has been neglected until recently although it seems a reasonable expectation that sibling effects within the context of the home are an important developmental factor.

5. PRESCHOOL AND DAYCARE EXPERIENCES

Although the family is the earliest significant agent of socialization, the immediate community within which the family lives and the wider social and economic realities undoubtedly play an important part. As Bronfenbrenner has suggested, the impact of daycare and preschool on families (and society at large) may have a more "profound consequence than any direct effects for the development of human beings in modern industrialized societies" (1979, p. 165). Certainly an increasing number of Western families are using daycare or preschool for a variety of reasons, the most common of which are economic expediency, a belief in the value of broadened social experiences, preparation for the cognitive and social demands of school, and relief for the caregiver (and possibly the child). In reviewing the literature of early childhood it is necessary to be aware that daycare and preschool, although frequently sharing common features, may not be synonymous and that as well as cross-cultural differences there may be a diversity within a particular society. Thus the term "preschool" may be describing a few hours a week in an informal group setting, or 20 hours (or more) a week in a structured environment. The failure to

define settings is a limitation of much of the literature of early childhood. The focus of the present study on the role of preschool in the social development of young children does not preclude use of relevant material from daycare research.

Several reviewers have indicated a long-standing belief in the beneficial effects of preschool attendance on social and emotional development, but research efforts have been less satisfactory than those in the area of cognitive development. Kellmer-Pringle (1974) suggested the problem is one of a lack of a sound theoretical basis and a lack of satisfactory instruments. Interactionists have objected to efforts to separate cognitive and socio-emotional aspects of psychological functioning preferring to study together what they regard as interrelated processes (Biber 1977, Zimilies 1979). Kessel (1979) deplores the neglect of social-emotional and personality development in the enormous literature of preschool interventions and evaluations of the 1970's. He claims that evaluative programmes favoured curriculum-structured, cognitively oriented programmes not only because of proven superiority but also because they were measurable with available tests.[4] Kessel sees the development of satisfactory instruments to assess social and emotional development as essential, and while recognizing the difficulty and time-consuming nature of naturalistic observations she believes that until these are used in relation with cognitive research there can be no claims of providing a true picture of the nature of educational experience.

B.L. White claims that there is a prevailing acceptance of the importance of the early years of childhood, particularly the first

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[4]Beller (1973) did examine socio-emotional development in relation to intellectual functioning as part of the Headstart programme, although rather than observing directly he based his data on ratings of dependency.

three years, for the development of language, problem-solving approaches and social behaviour and emotional growth (UNESCO Report, 1976). Bronfenbrenner concluded from his evaluation of intervention programmes that while excellent early development cannot guarantee excellent life-long development, poor progress during the early years remains remarkably difficult to overcome (1974). However, the re-emergence of stage-based developmental models largely as a result of later work on Piaget, has caused some questioning of a focus on acceleration (Reese and Lipsitt 1970, Sameroff 1975, Goldhaber 1979). Support for early experience as an essential link, but not necessarily of critical long-term significance, comes from an extensive examination of the topic in Clarke and Clarke's "Early Experience: Myth and Evidence" (1976). Accepting their view that only continuing or cumulative effects are likely to be significant there is still a need to provide the best possible experiences for every infant and child. Goldhaber (1979), in advocating a lifespan approach to early childhood, stresses the importance of the early years but suggests there should be greater appreciation of differences between species-specific and culture-specific development, a greater emphasis on the continuity of educational experience and an emphasis in early childhood education on "horizontal extension rather than vertical acceleration".

Minuchin (1977) outlines what are generally accepted to be the important goals for healthy social development in young children: the expansion of trusting relationships to adults beyond the family and to peers, the increasing development of channels for expressing and managing fear, helplessness, anger, affection and excitement; the establishment of the foundations of cooperative interaction in work and play: the maintenance of an exploratory stance toward the environment and a capacity for choice and initiative; the enhancement

of a subjective sense of mastery and the power to communicate and make an impact on the environment. Hartup (1970) concludes in a comprehensive review that infants under the age of three are influenced by age-mates in a relatively minor way but after this age there is evidence of the powerful effects of interactions with peers. The lessening of dependence on a one-to-one relationship with an adult is accompanied by a readiness (and ability) to function in somewhat extended groups (Bronfenbrenner 1979, Mussen 1979). The importance of preschool in providing human companionship has been stressed by Rheingold and Haskins (1978) who believe that young children learn from varied interactions some understanding of social reciprocity, acquiring expectations about the behaviour of others and beginning to perceive what is expected of them.

The effectiveness of attendance of preschool in developing social skills has been identified as depending upon: the type of programme (unstructured free play situations are more conducive to enhanced social development than more formal programmes); the length of attendance (the longer the period of attendance the stronger the effects whether pro- or anti-social); the sex of the child (boys are likely to show aggressive and egocentric behaviour); ordinal position (first-born and only children appear to benefit but there is no evidence of social advantage for later-born children); and the degree and quality of parent involvement (Swift 1964; Hartup 1965, 1970; Beller 1973; Fein and Clarke-Stewart 1973; Mussen 1979). McGrew (1972) concluded after reviewing studies of the social development of children in preschools that such settings promote social skills which prepare the child for effective adjustment to future group situations, most immediately school.

A local study supports contentions that the social advantages of preschool are significant for first and only children and also

illustrates the importance of sex and the type of preschool as significant variables. Edgar and Wilton (1977) measured first year primary children for social participation (Parten Scale) and found those who had attended one type of preschool (playcentre) and were first born were consistently rated higher. No differences were found in other first borns at the alternative preschool or those with no preschool experience, nor were there intergroup differences in later-borns. Attendance at the alternative preschool (kindergarten) had a negative effect on the social participation of girls but no apparent differences between boys' groups were identified.

Similarly, Moore's (1972) longitudinal study, comparing London children who had experienced daycare outside their home with a matched group reared exclusively at home, found sex to be the most important variable. For boys, long-term effects continued into adolescence, with those receiving daycare identifying more closely with peers and displaying fearless, aggressive, nonconforming behaviours whereas boys reared at home tended towards conforming, timid behaviours. Effects for girls were less clear although there was some evidence that home-reared girls were more outgoing and less domestically inclined than the daycare group. Data were gained from mothers' responses to inventories administered five times over a period of nine years and psychologist ratings over the same period. Results confirmed that regime, rather than maternal attitudes, was the primary statistical factor but unfortunately no differentiation between types of outside care was made, although there was considerable variation.

Kessel (1974) has criticised the failure of researchers who focus on the end product of preschool attendance without examining the variables within the different settings or, in ecological terms, the processes. Earlier, Swift (1964) had identified failure to control for

maturation effects and a lack of controls for practice efforts and bias in testers as weakening many studies. A recent substantial contribution to research methods in human development has been the application of ethological methodology in observations of social behaviour in preschool children. Information has been gained by time-sampling, pen and paper, tape and video of both physical and goal-oriented behaviours, with some consensus of items analysed from several independent studies. Although observational-descriptive studies are seen as preliminary to experimental manipulations and/or investigations, little experimental work has been done (P. Smith 1974, p. 97).

As a result of work with adult communication there has been some interest in the significance of non-verbal behaviours such as facial expression, head movement and touching in the social development of young children (Brannigan and Humphries 1972). An unpublished study (D.P. Martin 1975) used videofilm of eyegaze, headnodding and facial expression of children (aged 3-6) in conversation with a (strange) adult in home, nursery school and school settings, and was unable to show any positive effect of preschool attendance on progression with more adult-like behaviour. However, those children who indulged in more non-verbal communication at the earlier stage, were found to be more sociable in school. Strong sex effects have emerged in some studies of touching behaviour in preschool children. Boys show greater tendencies of touching than girls, with touching usually directed towards male peers and rarely towards adults whereas girls, although also most likely to touch same sex peers, are more likely to touch boys and adults. Adult caregivers also seem more likely to touch same sex children, especially if the gesture is of a friendly nature (Campbell 1972, Mayo and La France 1978, Perdue and Connor 1978). Sex differences in "rough and tumble" play have also been observed, with boys indulging in such behaviour more

frequently than girls. Such play is observed more often from four years onwards and both maturation and length of preschool experience appear to contribute. A cross-cultural study with Bushmen children showed no such sex differences, and P. Smith (1974) warns that the evidence is not entirely consistent and that temperamental and environmental variables may also intervene.

In the area of child-child interactions in nursery school the analysis of several independent studies has produced some agreement with *social maturity* (which correlates closely with age) being identified as the main dimension, followed by *choice of activity* (Blurton Jones 1972, P. Smith 1974). McGrew's (1972) study examined the effects of commencing nursery school on a group of "socially naive" children (6 girls and 6 boys aged 3-4) introduced singly to an established nursery school and observed for their first five days and for a follow-up period of five days after three months. Within five days the initial ambivalence and nervous exploration (represented by immobile or auto-manipulative activities) had decreased and social approaches and activities such as running had increased although no child displayed conspicuous play behaviour. By the time of the follow-up the group were indistinguishable. McGrew has suggested as the result of these observations that in the initial few minutes of each session there is a replication of the behaviours typical of the first day in the nursery school setting. Children already in the setting appeared to be indifferent of newcomers, except where an older sibling took charge of the new child (which tends to contradict findings with non-human primates).

Bloom-Fesbach (1980) has suggested that some dependency behaviours may have adaptive value. An observational study of 36 children aged 2-4, in their first weeks at nursery school, indicated that children who sought the help of teachers in the first weeks had

fewer separation problems than those remaining aloof. Children who began seeking the teacher only after 7-8 weeks were regarded as making a less successful adaptation and their attention seeking was described as indiscriminate. Those adjusting satisfactorily were more likely to have a more positive relationship with their mothers and have fathers who were actively involved in their rearing (based on mothers' reports). Bloom-Feshbach suggests that such children may be used to different styles of authority and consequently make the adjustment to new circumstances more readily.

Bronfenbrenner (1979) reviews studies were some attempt to analyse process and context in preschool children is made. Most of the emphasis has been on the impact of daycare on social emotional development, one of the best examples being Golden's (1978) analysis of family and group daycare, which concluded that the only variables identified as relating to later psychological development in 300 disadvantaged children were the amount of social interaction and individual attention children were given by caregivers.

Schwarz and colleagues (1971, 1974) examined, in a series of studies with some similarities to those of the British ethologist McGrew, the social and emotional reactions of children starting at nursery school. Children (N=46, aged 3-4) were observed for the first session from when left by their mothers on the first day, after they had attended for one week and after four weeks. Children with no previous experience (play group, daycare, Sunday School) scored significantly higher on measures of distress during the first hour of the first day, but no discernible differences could be found at any other time. Experimental manipulations to reduce stress (warm-up visits, mothers staying longer on the first day) produced no significant main effects. In a later study Schwarz et al. (1974) compared

20 children with previous daycare experience transferring to a new centre with 20 matched peers with no prior experience. Again significant emotional effects were apparently only during the first minutes of the first day, when children with experience were more at ease. However at five weeks this group was still ahead in the amount of social interactions eliciting responses from others, suggesting that the impact of previous daycare had been on the social rather than the emotional area. Further observations of the same children indicated that children with early daycare experience exceeded the home-reared group in aggression (physical and verbal) directed at both adults and peers, were less cooperative and less tolerant of frustration and were more likely to engage in large muscle activities than the control group. There was some suggestion that that group that had been together previously continued to interact together in the new setting. A study at Otago University (Smith and Bain 1978), using a scale developed by Smith, found no relationship between length of daycare or playcentre attendance and dependency scores. Observations supported Schwarz's findings that those children with greater experience interacted more with peers and teachers.

The longitudinal study of 120 Swedish children (aged 12-18 months at the beginning) observed in daycare, family daycare and home settings demonstrated a greater frequency of restrictive interactions and exploration of the environment in homes and family daycare than in centres. Cochran (1977) explains these results in ecological, rather than attachment-dependency terms,[5] suggesting that the broader roles of

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[5]Dependency behaviours have traditionally been regarded as non-adaptive forms of contact with adults. Ecological psychologists suggest that the adaptiveness (or not) of dependent behaviour can only be determined when seen in relation to (or in the context of) other significant behaviour (Caldwell et al. 1970, White and Watts 1973).

caregivers in both home settings where child-care is not their only function leads to a higher rate of controlling interactions than are necessary in a daycare centre, designed for one purpose. In their evaluation of a New Zealand childcare centre Smith and Haggerty (1979) found a surprisingly high level of caregiving with the environment (44.9), by which they mean caregiving in conjunction with tasks such as cleaning, cooking, tidying and clerical work. They noted that there was still a considerable amount of interaction with children and that children were often involved in these tasks with their caregivers which offered opportunities for learning about the physical environment as well as social skills such as helping and cooperation. Smith comments that the "home-like atmosphere" of this centre appeared to be unusual, and that in centres she visited in North America these non-caregiving duties were performed by other staff, which also appears to have been the case in the Swedish daycare centres used in the Cochran study. B.L. White has frequently stressed that effective parents are not continuously attending to their child but are <u>available</u> to give attention when it is required (to act as a consultant) or to explain why their immediate attention is not possible (1973, 1978, 1979).

The only experiment to examine the caretaker-child ratio is that of Travers and Ruopp (1978), considered by Bronfenbrenner to be noteworthy for its ecological validity (1979, p. 193). They concluded that, for children under three years, the caretaker-child ratio was of greater importance in affecting the behaviour of both children and caregivers than group size, confirming the importance of a one-to-one relationship between adult and child for the emotional security to enable exploration of the setting. Group size was the critical factor for children 3-5, with groups of less than 15 being associated with a higher frequency of desirable behaviour from children and caregivers.

(Thus groups of 12-14 children with two caregivers were found to produce better outcomes than a group of 24-28 children with four adults.) Additional analysis, rather than using group size as defined by the numbers present in a setting, used an index based on the number of persons actually interacting with each other, producing significantly increased correlations with outcome measures. Bronfenbrenner believes the study shows that in daycare situations children between 3 and 5 are more likely to engage in task-oriented activities (as distinguished from management and control activities) as the group becomes smaller (1979, p. 193).

The Swedish study, in following up children at five years, found sex differences to be more pronounced than differences between child-care environments (Gunnarsson 1978, p. 2). Although boys interacted less with adults and more with peers this was not expressed as anti-social behaviour but as less frequent use of adults as a resource. Boys from centre settings were more likely to be involved in cooperative and information sharing activities than home setting boys or girls in all settings. Over time a sex difference emerged in the composition of the groups, with more girls remaining in the centre group and more boys in the home settings. No separation of subjects by birth order seems to have been made although Gunnarsson notes that the arrival of a second child complicates childcare arrangements and that children remaining in care at the time of follow-up tended to be only children. The inclusion of observations of daycare and family daycare children in their home settings might have clarified whether choice of environment was relevant to outcome.

Bronfenbrenner has commented on the considerable body of evidence, including that of Schwarz et al. (1971, 1974) and Moore (1972), supporting the view that early daycare may not affect adjustment to

peers but may slow acquisition of cultural values (1979, p. 502). He has more recently suggested that the tendency for prolonged peer group contact to predispose children (particularly boys) towards aggressiveness, impulsivity and egocentrism reflects societies that stress "individualism and a social structure that emphasizes segregation by age" such as most Western countries (1979, pp. 179-180). He relates the Swedish emphasis on cooperation to outcomes of group care in Israel (a blend of cooperation and independence) and the Soviet Union (conformity and compliance). Interestingly, Smith and Bain's (1978) New Zealand study produced similar results to the Swedish study, with children with longer group experience displaying increased cooperative behaviour to both peers and adults. The need for caution in generalizing from cultures, even those with apparent similarities, is evident and the same caution must apply to generalizations from different preschool contexts within any society.

Bronfenbrenner was unable to locate any study of the effects of preschool experience on behaviour in the home, or any evidence that early entry to preschool has similar effects to daycare in predisposing some children towards particular behaviours.[6] "Given the breadth and variety of the preschool curriculum compared with that of the elementary grades, one might expect preschool attendance to increase the range of molar activities engaged in by the child at home and in other settings outside the preschool centre; this possibility also remains unexplored" (1979, p. 187). In the absence of such information Bronfenbrenner and Nerlove have commenced an investigation of three to five year olds and

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[6] Smith and Bain's (1978) observational study included both daycare and preschool children and found that it was length of experience, rather than type of regime, that differentiated children.

their caretakers in home and preschool settings. Nerlove et al. (1978) have developed a taxonomy of molar activities from pilot studies, based on observations of individual children and the people about them, including descriptions provided both by the children and their principal caregivers. Preliminary investigations have provided some information about molar activities. There is some suggestion that nonengagement (sleeping, resting, aimless activity, waiting), presumed to be at the lower end of the developmental continuum, may serve a function along with emotional activities in altering circumstances or situations. Unfortunately findings have yet to be published.

A recent study, with an emphasis on social behaviour, did explore the interrelation of home background and preschool attendance (Johnson et al. 1979). Thirty children aged 36-47 months were observed in the home setting with both parents present and in the daycare setting, using a modification of the Harvard Preschool Study Manual for Assessing Social Abilities (1973). Results indicated that three year olds in both settings spent similar periods in social tasks (30%) and a larger proportion of their time in non-social tasks (70%), supporting the view of social behaviour as largely reflecting age and maturation rather than regime. Presumably if a preschool closely reflects the values of parents (all middle class in this instance) differences between settings are unlikely. However, there was some evidence that time spent on individual tasks may be a function of the number of adults present. Children spent more time at the centre cooperating than at home (20%, 7%) but more time at home procuring a service (75%, 25%) and engaging in conversation (70%, 30%). Talking at the centre was less likely to develop into conversation, and more likely to be requests for information, information-giving or attention-seeking. The author concludes that social behaviour associated with different types of

preschool may be a function more of adult-child ratios than type of setting. The prosocial effects of the daycare environment in developing cooperation supports the findings of Cochran (1977), Gunnarsson (1978), and Smith and Bain (1978), also confirming the warning from the latter paper that the quality of care is an important ecological variable.

The influence of playgroup experience on children's interactions with parents was the focus of an experimental manipulation by Vandall (1979). Six male three year olds, enrolled in a daily three hour play group, were compared with six home-reared boys. No significant differences were found between the groups prior to the experiment, although they were selected by different means. After six months the playgroup children were participating more equally in interactions with parents (close to 50/50). Their parents showed an increase in the types of simple behaviours likely to elicit a response from their children, an effect which must have been channelled through the child as parents were not present at sessions. There were no effects from sex of parents or birth order, although throughout the study there was a suggestion that the parents of the home-reared children tended to be more dominant and controlling, reflected in the quality of vocalizations. The author acknowledges the need to replicate the study with girls and to include home observations for greater ecological validity (observations were all in a pseudo living room, initially strange to all children and parents). Equivalence of selection of families also seems a desirable design consideration.

6. THE NEW ZEALAND CONTEXT

In "Growing up in New Zealand" (1978) Ritchie and Ritchie provide an overview of the limited research on children and their families in

this country and attempt to relate it to the mainstream of developmental research. Their own findings are largely based on survey material and anecdotal accounts of life in New Zealand families (Chapters 2, 3, 4, 9, 10 and 11).

A longitudinal multidisciplinary study of a cohort of 1000 Dunedin children is continuing to provide information based on physiological and psychological assessments of the children and interview data collected from mothers (Silva 1976). An item analysis of the common activities of three year olds in the study provides a picture of solitary children working at tables with various materials, with little indication of physical activity. Of 30 items 14 have a common frequency for each sex, but girls dress up more than boys (72% to 65%) and favour activities such as listening to the radio, playing with dough, cutting out and pasting whereas boys more often play with building/construction toys, dig in the dirt and help father. The report provides little indication that these children engaged in conversation or cooperative social interaction (Ritchies 1978, p. 27) and there appears to have been no attempt to observe this group of children in anything but "strange situations". An unpublished study reported by the Ritchies (1973), using "systematic observations" (not explained further) of two groups of children in their preschool settings, describes similar sex differences in play patterns, where girls were involved in passive activities (watching, singing, pasting, cutting and pasting) while boys were more likely to be active in outdoor activities, using trolleys and sandpits. Girls engaged in conversation with adults more frequently, whereas boys tended to interact continuously with peers (talking, following their lead, leading), to play more roughly than girls (teasing, touching, pushing) and to relate to adults less frequently than girls.

The Christchurch Child Development study of a total cohort of infants born in the city during a three month period of 1977 has the aim of examining interrelations between social, medical and developmental problems of childhood. There is a particular concern with factors that may place children "at risk" in a variety of ways and with issues of current social and medical interest. So far little has been published of direct interest to child care and development (Shannon 1979).

Wilton and Barbour (1978), with an interest in identifying "high risk"[7] lower socioeconomic group children, used the interaction scales developed by White et al. (1972) to observe preschool children in activities with their mothers in home settings. High risk children (30-46 months) appeared to interact less often with their mothers and spend less time in "intellectual" activities than did a control group, which approximates the Harvard findings for high and low competence groups. There appear to have been no other studies of naturalistic interactions within family settings.

Although not compulsory preschool education is available to the majority of urban New Zealand children before they commence school, usually at five although attendance is compulsory only at the age of six. Barney's 1975 publication "Who Gets to Pre-School?", which provides a comprehensive overview of the preschool area, surveyed the availability of facilities and concluded that half of all three and four year olds were receiving some form of preschool education. He noted a trend for the number of available places to increase by 2.5% per annum (p. 267), and a continuing decrease in the birth rate (Meade

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[7] "High risk" of cultural-familial retardation; all these subjects had older siblings with no apparent organic impairment in special classes.

1979) would suggest present rates may be higher. The Hill Report (1971), based on the findings of the Committee of Inquiry into Preschools, estimated that approximately one-sixth of families might consider, with good reason, that their home provisions were adequate and preferable while another sixth might be considered (by others in the community, if not by themselves) as most in need of the advantages of preschool (p. 8). Rural children and lower status urban children were the most likely to miss out on preschool provisions. Most children (over 40%) are provided for by two major groups - playcentres and free kindergartens - although preschool is also provided in settings such as family daycare, daycare centres, family playgroups and private kindergartens, with provisions varying from a few hours a week to several hours each day, five days a weeek, and with the level of adult training and programmes showing similar variations. Historic and philosophical differences between playcentres and free kindergartens are fully discussed in the Hill Report and in Barney, with kindergartens being regarded as generally providing a more structured learning environment and playcentres placing emphasis on the child's play activities and on parent (usually mother) involvement.

An analysis of programmes provided by Wellington playcentres and kindergartens found considerable similarities between the two types of preschool, for both encourage programmes where the child can "experiment with materials of his choice, when he likes, how he likes, and for as long as he likes with adults present to assist and to help expand his/her experiences" (Meade 1976). Although playcentres draw supervisors from the pool of parents involved, the training provided (often with University Extension help) appeared to develop comparable skills to those of the government trained kindergarten teachers. Meade concluded that the ratio of adults present to the number of children was probably

the greatest distinguishing feature. Playcentres set a maximum of 30 children per session and with two supervisors and parent helpers there was usually one adult to four children, whereas one adult to twelve children was more typical of kindergartens (with 40-50 children each session). In 1971 kindergartens provided 70% of available urban preschool places, and playcentres provided a similarly high proportion of facilities in rural and small town areas of less than 2000.

Barney (1975) estimated that, overall, playcentres provide about one third of places and kindergartens close to two thirds, with the other types of settings providing less than 10% of preschool places. Although both organizations officially disapprove, several authors have noted that in areas that offer some choice (particularly larger cities) either through proximity or mobility (or both) there is an increasing tendency for a child to commence playcentre at 2½ or 3 and to transfer to a kindergarten at about 4, when a vacancy occurs in the kindergarten waiting list (McDonald 1974; Meade 1976; Barney 1975, 1977). Thus Barney reported that while there was a steady increase between 1966 and 1973 of kindergarten children who were 4 years old (67 to 75%) there was a decrease in 3 year olds (32 to 24%). Playcentre ratios showed less change and were in the other direction (50 to 44% for 4 year olds, 38 to 40% for 3's and from 9 to 14% for 2's) although Barney believed these trends were stabilizing by 1977 (p. 9).

It seems likely that in an urban area such as Christchurch (population approximately 300,000), which is well supplied with preschools (Barney 1975, Dimick 1978), the transition from home to preschool is likely to involve a playcentre, particularly for children starting this experience about their third birthday. Barney (1975) noted a tendency for urban Canterbury families with children attending playcentres to rate somewhat higher on measures of socioeconomic status

with 37% in the second group (managerial, professional, proprietors) compared with the national average of 29% (Irving-Elley 1975). Dimick's (1979) recent survey of preschool availability in Christchurch, which divided the 84 urban subdivisions into four SES status groupings (High, Upper Middle, Lower Middle and Lower) based on 1976 Census data, concluded that playcentres are not making as many places available in Lower SES areas as kindergartens and suggests this may be because playcentre ideology requires initiative and participation more often associated with middle class values (p. 65). The same study notes that the greater flexibility provided by the playcentre policy of leasing space rather than buildings has enabled them to keep pace with population movements into outer suburbs more readily. The most important factor influencing a child's attendance or non-attendance of preschool was ease of access. The failure to provide facilities in the outer suburbs of New Zealand cities for those who spend more time there (mothers and young children) was commented on (p. 8). Dimick's data shows that in the poorest served areas of Christchurch 45% attended preschool and the more prosperous and established suburbs approximated 65% attendance. Table 1 illustrates the availability of preschools in the four status areas.

Table 1. Utilization of preschool facilities (Christchurch Urban Area) (from Dimick 1979, p. 64).

SES Status Areas	Percentage 3-4 year olds		
	Playcentre	Kindergarten	Both
High (N=21)	14.09	48.57	62.66
Upper Middle (N=21)	12.16	41.39	53.55
Lower Middle (N=21)	15.97	30.70	46.68
Low	9.29	36.26	45.55

This study confirms Barney's assessment that ease of access (either through proximity or availability of transport) is influential both in deciding which children attend preschool and the type of facility they are offered. Edgar (1975), whose investigation of the effects of preschool attendance on socialization in the first year of primary school was also conducted in Christchurch city, found that choice between kindergarten and playcentre on ideological grounds was "nonexistent" for her sample of 90 families and that proximity to home or vacancies on waiting lists determined whether a child attended preschool or not. She reported that three-quarters of the mothers of non-attenders (N=30) would have sent their child if a facility were available. The similarity of the content of kindergarten and playcentre programmes has already been pointed out and Meade has contended that the main difference is in the greater number of adults present during a playcentre session. A former president of the Playcentre Association has stated: "We are not a service organization providing preschool education for other people's children however needy they may be. We are a cooperative of parents banded together to provide preschool education for our children by training ourselves to do the job" (Richards 1973). Thus parents are expected to establish, equip, maintain and staff their own centres which involves provision of both staff training and parent education usually with some guidance from University Extension staff and/or those involved in teacher training. Families pay fees for each session but government funding provides annual grants for administrative and developmental purposes and makes loans available for equipment and the construction of buildings.

McDonald (1974) has identified the emphasis on parent education and the use of mothers to staff the centres as the chief characteristics of the playcentre movement. In discussing the development of playcentre

theory McDonald comments on the ambiguity of a situation where both theory and practice support a degree of freedom from child care but where the "ethos of the playcentre works towards *increase of contact between mother and child*" (p. 161). She has suggested that the involvement required effected a compromise between the roles of mother in the home and worker (outside the home) and provided status for women in society. Recent changes indicate that increasing numbers of women are returning to the work force after a shorter period devoted exclusively to child care and are depleting the numbers of able volunteers necessary for the playcentre system to function properly (Meade 1979). The completion of several new kindergartens in the late 1970's, the granting of Government subsidies to "alternative" preschools, the diminishing pool of volunteers, and the need of working mothers for both longer periods of childminding than playcentres have been willing to offer and for childcare without parent involvement requirements may mean that the proportion of children attending playcentres (one third of all those at preschool in 1975) is declining although no statistical evidence is available at present. Normally a child attends either two or three half day sessions a week, the rationale being that this enables the child to take back to interactions in the home play themes and experiences developed in the centre.

Although the past decade has produced a considerable emphasis on preschool education in New Zealand, research has frequently been limited to surveys or relied on caretaker reports or psychological assessments in strange settings, so that Kessel's (1979) criticism of researchers' failure to account for context is frequently pertinent. An ecological approach, with concern for process and context, has been taken by Smith (1978, 1979) in a series of naturalistic, observational studies of children and caretakers in daycare and playcentre settings. Wilton and

Barbour (1978) observed mother-child interactions of a restricted ("high-risk") group in their home settings and Edgar and Wilton (1977) demonstrated that there were some social advantages in the first year at school for children who had attempted a certain type of preschool (playcentre) and who were first and only children. Until the present study there has been no attempt to assess the effects of preschool attendance upon interactions within the child's home setting.

7. OUTLINE OF EXPERIMENTAL HYPOTHESES

(i) Statement of Hypotheses

To investigate the possible effects of preschool attendance on children's behaviour within their home the following hypotheses were formulated:

(1) that family interactions of children attending preschool will be different to those experienced by home reared agemates;

(2) that preschool attendance has a facilitative effect on young children's social behaviour;

(3) that the principal caretaker (probably the mother) will be able to predict, on the basis of her knowledge of her child, the child's ability to handle the complexities of a new situation.

(ii) Rationale for the Study

In his review of current research into the effects of preschool attendance Bronfenbrenner (1979) laments the lack of any study on the effects of preschool on behaviour in the home and the failure to replicate Cochran's (1977) comparative analysis of home and daycare. He suggests the desirability of cross-validation of results of investigations into the effects of daycare with similar research into preschool effects. Gunnarsson (1978) considers that the failure to

observe daycare children in their homes was a major limitation of the Swedish study and that observational data from the home environment would have contributed to a fuller understanding of the child's social experiences. Bronfenbrenner specifies a need to question whether early entry to preschool predisposes children to certain types of behaviour (aggression, egocentrism, cooperation) as some daycare research has suggested and to emphasize peer relations (Schwarz et al. 1971, 1974; Moore 1972; Cochran 1977; Golden 1978; Smith et al. 1978, 1979; Gunnarsson 1979). Bronfenbrenner suggests that, "Given the breadth and variety of the preschool curriculum..... one might expect preschool attendance to increase the range of molar activities engaged in by the child at home and in other settings outside the preschool centres" (p. 187).

The present study is an attempt to explore, by means of a before-and-after-design, the effects of the first six weeks of preschool experience on the social behaviour of young children in their own homes. In focussing on the ecological transition between home and preschool settings [an experience common to the majority of children in industrialized nations (Bronfenbrenner 1979, Barney 1975)] it follows as closely as possible the principles of <u>experimental ecological research</u> and is directly influenced by the following hypotheses formulated by Bronfenbrenner (1979):

Hypothesis 20.

The immediate and long-range effects of exposure to group settings in early childhood will be reflected not primarily in scores on intelligence, achievement tests or interaction processes but in the nature and variety of the molar activities engaged in by the child and in the changed character of his behaviour and relations towards adults and peers (p. 201).

Hypothesis 24.

The variety and complexity of the molar activities available to and engaged in by the child in a daycare or preschool setting affects her development as manifested by the variety and com-lexity of the molar activities exhibited by the child in other settings, such as home and, subsequently school (p. 203).

(iii) Operational Restatement of Hypotheses

The study observed preschool children during a period of developmental transition in an attempt to gain some insight into normal desirable social development. It was predicted that scores on the Social Abilities Checklist (White 1978, pp. 450-2) would identify any changes in interactions observed at home which might relate to preschool attendance, by differentiating children with six weeks' school experience from a group of similar age and background, without preschool experience. It was expected that preschool attendance would increase the rate of interactions at home and produce changes in the character of relations between the children and their parents and siblings (Hypotheses 1 and 2).

Hypothesis 3 examines parental predictions of the child's ability to adapt to a new setting and new relationships and it was speculated that optimistic parental predictions may have a positive relationship with increased social development. If mothers are able to make such predictions on the basis of continuous experience, this would support the contention of Newson and Newson (1968) that the mother is the expert on her own child rather than that of Reid (1978) that parents are unable to provide valid or reliable reports.

(iv) The Significance of the Study

This research was designed to provide a pilot study of the ecological effects of the transition of young children from home to

the wider community (preschool). Bronfenbrenner (1979) has commented on the lack of previous studies of this area and expressed a belief in the value of such an analysis. It is hoped that the analysis of the content of their social activities will reveal substantial differences, which can be attributed to the developmental impact of experience in one setting on behaviour and development in another. Information gained from naturalistic observation of molar activities should provide valuable knowledge, useful for those involved in early childhood education and parents, about the actual experiences of children as they adapt to a group setting outside their home. The study concentrates on only one aspect of molar activity, the social behaviour at home of children who have recently entered an external group setting. It is also hoped that this study will stimulate further detailed and long-term investigations into a previously unexplored area. If parents are able to make accurate predictions of how their child will adapt to a new setting, professionals dealing with children in new settings (educators and clinicians) should assess the most valid and reliable means of gaining this information.

CHAPTER III

METHODS

1. SUBJECTS

Subjects were 23 children, living within the Christchurch urban area, who were already on preschool (playcentre) waiting lists and whose parents were approached by letter (Appendix C). This makes a very specific population but, from an ecological viewpoint, the opportunity to observe children in a naturalistic setting outweighed failure to randomly select subjects. Previous surveys have shown the Christchurch urban area to have one of the highest rates of preschool attendance, and for the parental socioeconomic status of playcentre children to be higher than in any other area of New Zealand (Barney 1975, Dimick 1979). This trend was reflected in the SES ratings of subjects, based on the Elley-Irving scale for assessing New Zealand socioeconomic data (1976) with means for both groups being somewhat high (Group I χ = 3.08, S.D. 0.88 and Group II χ = 2.5, S.D. 2.5) compared with the general population. [Recent analyses of data on over 1000 families in the Christchurch urban area confirmed the validity of the SES scale as a test of sample representativeness (Fergusson and Horwood 1979).]

Playcentre policy spreads the intake of children throughout the year so that position on a waiting list, rather than parental choice, often determines the age a child commences preschool. Normally children will start about their third birthday, with two and a half years being regarded as the minimum age for most centres. Thirteen subjects were selected from children about to start playcentre to form the experimental

group (Group I) and 10 control subjects (Group II) from children not expected to commence playcentre for at least two months after the initial observation. Any children who, for any reason, were being held back from starting playcentre were not included so that position on the waiting list was the distinguishing variable. Demographic material provided by Dimick (1979) was used to locate comparable suburbs with differing waiting-list lengths (usually determined by the provision or not of alternative preschools). Generally waiting lists are short, which complicated the location of control subjects and explains the larger experimental group.

Table 2. Distributions of subjects on the two conditions.

	Total N=23	Male	Female
Group I	13	5	8
Group II	10	4	6

The Goodenough-Harris (Harris 1963) "Draw-A-Man" test was administered by the researcher, with a parent (in all cases the mother) present, in the child's home as part of the initial session. Although reliability of norms for children under five years is not well established, the measure is easily administered without obviously being a test. Results supported the belief that the subjects were of normal intellectual development and that the two groups were homogeneous on this variable (Group I χ = 98.54, S.D. 9.37; Group II χ = 98.5, S.D. 6.68; overall range 35).

Because both position and the number of siblings have been suggested as important variables in family interactions (Abrovomitch et al. 1979, B. Martin 1978, B. White 1979) and family position has been shown to be important in a study relating preschool experience

to social behaviour in the first year of school (Edgar and Wilton 1977), this information was collected and is presented in Table 3.

Table 3. Distribution of subjects by birth positions and sibling numbers on the two conditions.

	Total N=23	Birth position		Number of siblings		
		First	Other	0	1	2
Group I (N=13)						
Male	5	1	4	0	3	2
Female	8	6	2	3	5	0
Group II (N=10)						
Male	4	2	2	0	3	1
Female	6	3	3	0	5	1

Discriminant analysis of these variables revealed the two groups to be significantly different only on the variable of age (Group I χ = 37.30 months, S.D. 1.25; Group II χ = 35.7 months, S.D. 0.95) but the age range for all subjects of 4 months was regarded as slight enough to consider the groups as being of a comparable age. The three coping questions, relating to the mothers' ability to predict their child's behaviour in a new situation, were also included in discriminant analysis and differences in responses between the groups were not found to be significant.

Overall, data support the view that subjects, prior to the experience of preschool by the experimental subjects, represented a homogeneous group typical of playcentre populations within the context of the Christchurch urban area.

It was found impracticable to exclude children who had previous experience of a group outside the home but it was found that overall 56% had attended a playgroup[8] on a regular basis for over two months,

[8]All playgroups discussed required mothers to be present during the session, unlike creches where some children had been left for 2-3 hours on an irregular basis.

and in Group I this rose to 70% and one child in each group regularly attended Sunday School. When a discriminant analysis of demographic variables was made, playgroup experience was approaching significance (F 3.752, $p = 0.0663$). Prior attendance at a playgroup had been instrumental in 26% of the children being placed on a playcentre waiting list. A similar percentage of parents (26%) had been influenced by the good effects of playcentre experience on an older sibling. Dimick (1979) and Edgar (1975) both noted that two-thirds of those surveyed had no choice of playcentre whereas only 34% of this group felt there had been no alternative. Of this 34% four mothers preferred their child to start at an earlier age than the local kindergarten allowed, and three of these four had their children on kindergarten waiting lists. Closeness to home influenced 78% and presumably lack of alternative preschools in the immediate neighbourhood or suitable transport was included in this. Fifty per cent of Group II mothers commented on the lack of children in their neighbourhood, which suggests that, as expected, adequate preschool facilities are provided in areas with a high proportion of households with children, and explains the longer waiting lists in some areas where Group II families were located.

All parents (100%) had an expectation that preschool would improve their child's social contacts and 65% saw playcentre as preparation for school, although only 39% were concerned about the provision of intellectual stimulation in a preschool. There were only two families in the study, both in lower SES groups, who had nowhere suitable for their child to play and who saw playcentres as providing suitable facilities. Several other mothers expressed an interest in their child indulging in "messy" play in a setting other than their home. Only 34% expressed caregiver relief as motivation for their child attending playcentre, and one mother commented that she found

the parent involvement a stressful requirement rather than providing relaxation. She had taken advantage of her child starting earlier at preschool but intended her to go on to kindergarten at about four years. Whether "social desirability" caused few mothers to admit they would appreciate time away from their child, or whether parents requiring relief choose preschools other than playcentres is a point of interest not clear here. Recalling Bronfenbrenner's adaptation of classical experimental terminology that, in ecological designs, main effects are likely to be interactions, an attempt was made to collect data on a wide range of demographic variables: age, sex, number of siblings, birth position, parental education, age and SES, family intactness, playgroup experience and IQ were included. Table 4 contains descriptive data on the groups.

2. GENERAL DESIGN

"Much of developmental psychology as it now exists is the science of the strange behaviour of children in strange situations with strange adults for the briefest periods of time" (Bronfenbrenner 1979, p. 19).

The design of this study is based on Bronfenbrenner's concept of an ecological structure to study actual human behaviour in natural settings. He defines a microsystem as a "pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (p. 22) and a mesosystem is the interrelation of two or more settings in which the developing person actively participates (p. 25). The present design is an attempt to show the effects upon the social behaviour of young children of the transition from the microsystem of the home to the wider mesosystem as represented by a preschool.

Table 4. Descriptive data on the experimental groups

		Sex	Age (months)	Siblings a. Number	Siblings b. Male	Siblings c. Female
Group I	χ	1.62	37.31	1.23	0.84	0.30
	S.D.	0.5	1.25	0.4	0.80	0.48
Group II	χ	1.60	35.70	1.21	0.80	0.50
	S.D.	0.52	0.95	0.42	0.63	0.52

		Birth position	SES*	Age father[1]	Age mother[1]	Education father[2]
Group I	χ	1.69	3.08	2.54	2.38	2.30
	S.D.	0.75	0.88	0.87	1.04	1.09
Group II	χ	1.86	2.50	2.70	2.30	2.60
	S.D.	0.71	0.67	0.67	0.94	0.69

		Education mother[2]	Intactness	Playgroup	IQ
Group I	χ	2.0	1.15	1.31	96.5
	S.D.	0.91	0.37	0.48	9.37
Group II	χ	2.40	1.00	1.70	98.5
	S.D.	0.69	0.00	0.48	6.68

* Scores range from 1 (high) to 6 (low).

[1] Scores range from 1 (under 25) to 4 (over 36).

[2] Scores range from 1 (less than 4 years secondary) to 4 (University graduate).

A before-and-after design, suggested by Bronfenbrenner (p. 201) as the most suitable for this type of research, has been used to investigate the ecological transition and any changes in molar activities involved in the home setting and development within the home (preschool) setting. An ecological perspective requires the observation of subjects in both settings if the criterion of developmental validity is to be met. Otherwise differences observed might represent adaptation to a particular situation without reflecting a lasting influence. Bronfenbrenner has proposed: if different settings have different developmental effects, then these effects should reflect the major ecological differences between the settings, as revealed by contrasting patterns of activities, roles, and relations (Proposition H, p. 183, 1979).

(i) Validity

External validity, or the generalizability of inferences across persons, settings and time, has been recognized as central to developmental psychology. However, recent years have seen social scientists increasingly questioning traditional methodologies, and their ability to provide an adequate theory of behaviour or to predict performance in naturalistic contexts (Hultsch and Hickey 1978).

In ecological research, as many theoretically relevant ecological contrasts as possible are "controlled in", within the constraints of practicability and experimental design. This still enables assessment of the generalizability of inferences beyond a specific situation, and helps identify the processes of mutual accommodation by which developing humans adapt to their surroundings. Hultsch and Hickey (1978) claim that the inclusion of a wide range of environmental variables has led to an increasing agreement about the interaction effects characteristic of human behaviour. Structure, rather than size, is critical in ecological design and Bronfenbrenner has stated that studies of

ecological transitions do not require large numbers of subjects but do require systematic recognition of the different ecological contexts. The critical role of experiments for hypothesis testing and for early analysis of system properties in settings is acknowledged but consistency takes precedence over validity. Bronfenbrenner describes ecological validity as a close as possible approximation to the extent to which the environment experienced by the subjects is a scientific investigation and has the properties it is supposed or assumed to have by the investigator. "Like frictionless motion, ecological validity is a goal to be pursued, apprached, but never achieved. The more closely it is approximated, however, the clearer will be the scientific understanding of the complex interplay between the developing human organism and the functionally relevant aspects of its physical and social environment" (Bronfenbrenner 1979, p. 33).

(a) Observational methods. The ecological validity of the naturalness of interactions observed within home settings is open to speculation. Although written from a specifically social learning approach the Oregon University's Manual on Observations in Home Settings (1978, Vol. 2) contains a useful review of the development of observational techniques since the Barker group's pioneer work in the 1950's and gives consideration to the possible effects of observer presence in home settings. In one study reported Paul (1963) observed 10 preschoolers and their mothers several times over a number of weeks. The mothers reported strong awareness of observers yet there appeared to be no discernible observer-effect on mothers' ratings of their children, nor upon the behaviour of the children when observer-present and observer-absent conditions were compared. Similarly, P.D. Martin's (1975) study of non-verbal behaviours reported that four year old

children adjusted rapidly and showed no obvious disturbance when video cameras were introduced into their homes. The Oregon Manual concludes that there is a setting-specific observer effect, which may lead to acceleration of a small number of setting-relevant behaviours but that effects do not seem to habituate over trials. Research involving concealed observers (which seemed ethically questionable) is quoted as evidence of the relatively small importance of observer effects (p. 19).

The Harvard Project (1973, 1978, 1979) also considered there was a probable increase in the amount of interaction and a reduction of behaviours such as day-dreaming during observations. There may also have been a slight influence from familiarity with procedures. White et al. (1978) concluded that the observer effect disappeared after five or six observations and recommended a minimum of six observations prior to any experiment or intervention. Wilton and Barbour (1978) concluded that obvious effects of observer presence diminished after 20 minutes if the importance of continuing with their normal routine was stressed to mothers and recommend a 20 minute "dry-run" period. The value of information provided on social behaviour in home settings appears to outweigh any limitations upon external validity imposed by the effects of the presence of an observer. In an ecological design the question of consistency of observations rather than the effects of observers may be of greater importance.

(b) Parental predictions. Studies using observational methods as a criterion measure have shown only low level correlations between ratings based on interviews with mothers and observations of interactions (Reid 1978) and many studies show discontinuities across methods (Baumrind and Black 1967, Honig, Tannenbaum and Caldwell 1968). Reid concluded that parents are unable to provide reliable or valid reports of their children's behaviour. It should be noted that his

evidence was largely based on delinquent and problem children and that in such families conflict in parental predictions may be more likely than in more normal situations. It may be that the wrong questions have been asked of the wrong parents. Newson and Newson's (1968) principle that the mother (or principal caretaker) is the expert on her own child and that she knows more about the child and his or her behaviour in more situations than anyone else, is an attractive one worthy of investigation.

(ii) Reliability

Manuals of systems where observations are coded for analysis have all stressed the importance of observer reliability (Caldwell 1971, Clarke-Stewart 1977, White 1978, Reid 1978) although, as B. White (1978, p. 123) remarks, there do not appear to be more than two reports wherein the reporting of methods for gauging reliability is the same, making comparisons difficult. Reliability has been defined as the degree to which observers code behaviour in accordance with predisposed criteria (Reid 1978). White (1978) has emphasized that establishing criteria is not sufficient and that if inaccuracies are to be avoided continuous observer checks must be sustained throughout coding. Failure to maintain reliability in observations was a problem not completely resolved in the Harvard Preschool Project (1978, p. 123, pp. 457-461). The studies listed at the beginning of this section were all able to establish coder reliability at around 0.70 but higher percentages of agreement seem difficult to establish. Actual reliabilities achieved in the present study are discussed in the procedures section of this chapter.

(iii) Instruments

(a) Social Abilities Checklist (see Appendix C). Observations in this study were based on the Harvard Social Abilities Checklist developed by Ogilvie and Shapiro (1978, pp. 431-461). The strategy used is one of focussing on the child and the people (adults and peers) interacting with him or her to produce quantifiable data. Although the emphasis on social competence may be considered a limitation it appears the most appropriate instrument to provide systematic descriptions of what normal three year old children are doing, whether they are interacting with others or not. Bronfenbrenner has warned of the relation of "facts" to method (1974, 1979) but in the absence of a suitable instrument based on his approach to natural experimentation it was felt that there was sufficient agreement between Bronfenbrenner and that of White and colleagues on general principles of ecological research, to consider the Social Abilities Checklist an appropriate scale. Reliability, assessed by computing correlation coefficients on half-hour period observations, has been consistently high (0.87). The scale classifies separately children's interactions with adults and with peers. Briefly, the behaviours of the child are coded according to 27 activity categories which are grouped under eight dimensions of social behaviour.

1. Getting an adult's attention through socially acceptable means. (Categories 1-2)
2. Using an adult as a resource. Either instrumental or emotional use of an adult in order to obtain something by means of verbal request or demand, or by a physical demonstration of need. (Categories 3-4)
3. Expressing affection and hostility to an adult. The ability to express both affection and hostility is used as a manifestation

of social competence. Included in this section are interactions in which the child attempts to control or influence the behaviour of adults, complies or not with adult directions, and expresses either affection or hostility to adults.

(Categories 5-9)

4. Pride in product. This section is used to score the times when a child is pleased with something he or she has created or something possessed, or some action performed, or some ability claimed (boasting).

   (Categories 11-12)

5. Role play. The subject's role-playing of adult behaviour and expressions of a desire to remain young or a baby are included in these categories.

   (Categories 13-14)

6. Leading and following peers and children. The ability to lead and follow (children are under age seven, peers are agemates) is scored when a child does something to gain the attention of a peer, leads in peer activities, serves as a model for a peer and follows the lead of peers.

   (Categories 1-7)

7. Expresses affection and hostility to peers and children. This section is used to tabulate refusal to follow peer directions, or imitation of peers and the expression of affection or hostility to peers.

   (Categories 8-11)

8. Competition with peers and children. Overt competitive behaviour is scored in this section, with a common category of competitive behaviour being separated out, i.e. competition for equipment.

   (Categories 12-13)

More detailed definitions and guidelines for assigning behaviour to categories are included in the manual published in White et al. (1978, pp. 431-461).

(b) Home Visit Checklist (see Appendix C). This was designed to structure the initial home visit and to provide ecological material on the context of the home included in the discussion on subjects earlier in this chapter. In order to test Hypothesis 3 that the child's principal caretaker[9] would be able to correctly predict her child's ability to handle the complexities of a new situation, a series of questions were included. Mothers were asked to rate their child's ability to cope with the following: Being away from their caregiver; Relating to other children; and in Gaining supervisor's attention (Question 6). Mothers had a choice of rating their child as being able to cope: (1) Easily, (2) May be difficult, (3) Uncertain. Mothers were also asked to expand on the ways they expected their child to benefit from playcentre attendance (Question 7).

(c) Distal Adult Effects Checklist (see Appendix C). This was developed to rate adult caregivers on the management of the child's daily activities and access to the environment (White et al. 1978, pp. 411-414). Ratings are made on the following dimensions: Provision of Materials for the Subject's Use; Safety Precautions; Child-proofing; Accessibility to Living Areas; Adult Availability to Subject; and Adults Scheduling of Daily Activities. Ratings were made after each visit, with comments added where possible.

(d) Goodenough-Harris "Draw-A-Man" Test (Harris 1965). This was administered to provide an indication of intellectual ability.

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[9] It has already been noted that in all cases mothers were the principal caretaker.

Although reliability for children under five years is not well-established, ease of administration favoured its use in a home setting rather than more time-consuming and detailed (possibly more accurate) instruments such as those developed by the Harvard Project (White et al. 1973, 1978).

(iv) Procedure

Permission was given by the Canterbury Playcentre Association to contact, by letter, parents of children on waiting lists. The shortness of waiting lists has already been commented upon and delays caused by this method led to the abandoning of letters. Instead parents were contacted by telephone. Although some families were unable to participate for various reasons, there was only one response hostile to the study, and parents readily consented to their child taking part. Of children dropping out of the study, one mother worked full-time outside the home and had difficulty arranging observation times, while three families shifted during the study. Mobility of this group seemed high; 8 subjects (3 in Group I, 5 in Group II) had shifted since birth. Two out of the 5 Group II children were delayed in starting playcentre because of moves. Mobility of families of preschool children both within the same city and to other places was also noted by Barney (1975) and Dimick (1979).

Subjects and their mothers (and three fathers who happened to be at home) were subsequently visited in their own homes, where the focus of the study on naturalistic observations of everyday behaviour was explained and the Home Visit Checklist and Goodenough-Harris measure also administered (by the researcher but involving the cooperation of mothers). The desirability of observations being as close as possible to reality was discussed and a typed list providing a guideline for

observations was left with the parent. Observation times were chosen to fit in with normal activities. In almost all households this involved fathers and siblings being present as is apparent in individual data (Appendix B). The timing of the first observation was dependent on the date each Group I child was to start playcentre,[10] and all these children were observed within five days or less of starting preschool. Group II children were observed as close as possible to their third birthday as it was found impossible because of the small numbers on the waiting lists to match the groups any more accurately on age. After Group I children had attended playcentre for six weeks they were again observed at home for 30 minutes, and subsequently at playcentre. Coding and scoring of the Social Abilities checklist followed the same procedures as in the earlier observations. Playcentre observations were undertaken by the researcher (Observer A) who had established reliability with two observers during training (see Table 5). Playcentre supervisors were asked to rate Group I children on the three Coping questions (Home Visit Checklist, Appendix C) and to comment on their adjustment to the new setting. Mothers of Group I children were asked for their assessment of how their child had actually coped with the new situation. After a period of six weeks had elapsed Group II children were observed for the second time in their homes.

Four senior playcentre supervisors were trained to use the Social Abilities and Distal Adult Effects Checklists in systematic observations. All observers were experienced in working with (and observing) preschool children and their families and, as parents,

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[10] Playcentre policy spreads intakes throughout the year to ensure each child has sufficient attention along the transition period. This led to loss of potential control and experimental subjects as there had to be at least six weeks of a playcentre term left after the Group I child's starting date to enable the playcentre observation. Consequently collection of data took several months.

were felt to be acceptable in observing in home settings. Pairs of observers were trained in preschool and home settings prior to the collection of data, and consistent levels of reliability were obtained. Agreement was reached on 90% of interactions with adult and peers on the Social Abilities Checklist (see Table 5). Observers were randomly assigned to home visits but in the second stage of the study one observer was responsible for a larger share of observations.

Table 5. Reliability procedures - mean correlations* for pairs of observers on Social Abilities Checklist.

Observers	Social abilities Time 1	Time 2
A + B	0.906	0.948
C + D	0.943	0.899
E + A	0.860	0.897
Overall mean correlation	0.903	0.911

*Mean correlations were arrived at by calculating Pearson Product moment correlation coefficients from observations. Time 1 was the training period and involved simultaneous observations by each pair of observers of three children in a preschool setting and one child in a home setting. Time 2 observations were checks by the same pairs of observers at different times during the study of two children in their homes. All children were approximately the same age and from the same population as subjects in the study.

Information on Distal adult effects was collected during both observations. A high level of agreement was reached (over 95% for all observers) during the training period. No attempt was made to observe changes over time although over a longer period the influence of preschool models (particularly through parent involvement) might be expected to produce changes in materials provided, and management.

Table 6. Observer pair agreements on rating scale of Distal adult effects*

Observers	Distal effects % agreement
A + B	100
C + D	95
A + E	100

*Observations were of the two subjects observed at home in training (see Table 5, Time 1).

The practice of a dry run period of 10 minutes prior to the 30 minute observation period was incorporated to reduce the effects of observer-presence (individual profiles in Chapter IV contain a discussion of how certain children and certain families reacted to the presence of an observer). Each observation record was written out in full and coded on the basis of children's activities and interaction techniques. Although it is generally recommended for this type of observational study (Clarke-Stewart 1977, Winter et al. 1978) that sessions be taped, considerable observer resistance and the lack of sufficiently flexible recorders to enable observers to follow subjects, led to a reliance on written records. Within the timed observation period, episodes of behaviour lasting longer than five seconds were given a further slash mark on the checklist every five seconds so that scores give the amount of activity in a category rather than the number of separate episodes. Scoring followed procedures developed by Ogilvie and Shapiro (White et al. 1978, p. 432, pp. 453-5). Because the checklist was designed to differentiate competent behaviours, it emphasizes categories considered significant. Although this is a limitation when using the instrument in a broader observational context, observers did not "force" into the framework of the checklist activities outside the given categories.

Instead any such behaviours were noted and have been included in the Individual Profiles (Chapter IV).

3. DATA ANALYSES

In offering a theoretical perspective for ecological research in human development Bronfenbrenner (1979) does not discuss analysis of data beyond suggesting that main effects are likely to be interactions and to advocate the inclusion of as many ecological variables as possible. Although an ecological perspective includes hypothesis testing, discovery is considered the primary purpose, i.e. identification of system properties and processes both affecting and affected by behaviour and development (pp. 37-38).

White et al. (1978) acknowledged the lack of strength of research design and statistical analysis in the area of child development and recognized that this was a serious handicap in presenting data from the naturalistic Harvard Preschool Study. White claims that conventional parametric statistics have proven inadequate in ecological studies. In the case of the Social Abilities Checklist used in the present study White (1979) concludes it has a sound basis of validity but that the failure to establish satisfactory reliabilities is partly because of a lack of adequate statistics.

SPSS Discriminant Function Analyses were carried out on all variables (17 demographic variables and means on all 44 Social Ability categories) to establish differences between groups over time. Analyses of variance, using a repeated measure "Teddy Bear" design developed by Wilson (1979) were carried out on those variations shown to discriminate between groups over time.

CHAPTER IV

RESULTS AND DISCUSSION

1. THE EFFECTS OF PRESCHOOL ATTENDANCE

Discriminant Analysis

To assess what aspects (if any) of attendance at preschool produced changes in behaviour, Discriminant Function Analyses were performed on all categories of behaviour recorded within the Social Abilities Checklist on both the Adult and Peer Scales (see Appendix C). Analyses provided a description, at micro-level, of concrete behaviours likely to be changed. Results of Discriminant analysis on demographic variables have already been discussed and descriptive data establishing homogeneity of groups provided in Table 4. Appendix A contains means and standard deviations for all possible categories on the Social Abilities Checklist. No significant[11] differences were established between groups on any of the checklist categories at Time 1 although A19, Pride in Product, was approaching significance at <0.04 and this category also had the largest correlation in pooled within-groups analyses ($r = 0.14419$).

In looking at what changes between Time 1 and Time 2 differentiated the two groups B1, Successful Gaining of Peer Attention, was significant at <0.01 level:

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[11] Confidence levels were set at <0.01 for all statistics in discriminant analyses, namely Wilk's Lambda (U-statistic) and Univariate F-ratio with 21 degrees of freedom.

		Time 2	-	Time 1	Difference
Group 1	x	4.38		1.4	= 3
Group 2	x	0.4		1.6667	= -1.2

Group 1 subjects showed a marked increase in successful gaining of peer attention between the first and second observation whereas both groups had similar levels at Time 1. This result suggests that playcentre attendance presumably added to the ability of Group 1 children to gain the attention of their siblings and peers in the home setting.

B19, Expression of Physical Hostility to Peers, was also significant at <0.01 level, showing a small decline in this score for Group 1 and a small increase for Group 2:

		Time 2	-	Time 1	Difference
Group 1	x	0.46154		0.6	= -0.14
Group 2	x	1.0000		0.2	= 0.8

Significance here may be the result of statistical aberration alone, for at this stage the variables added to the Discrimination function failed to increase discrimination ($p > 0.1$). It is, however, noteworthy that Analysis of Variance, with previous playgroup experience as a co-variable, found the competence factor Expression of Affection and Hostility to Peers (of which B19 is a component) close to significance.

Discriminant functions with a finer mesh than those so far considered are not very enlightening and it seemed preferable to transfer attention to where behaviours almost, or do, discriminate between groups on their own. Instead of looking at changes, levels of behaviour exhibited by both groups at Time 2 were compared and it was found that categories B1 and B6 were the two specific behaviours exhibiting the most discriminating levels.

Step-wise discriminant analysis confirmed the discriminatory function of B1 ($p = <0.001$). B1, Successful Gaining of Peer Attention, was not included for an unspecified reason in weighted scoring

procedures on the Harvard checklist. The later emphasis of the Harvard study on family effectiveness training rather than peer relationships may be an explanation for the failure to include this variable.

At the second step B6, Leading Peers Unsuccessfully, was close to significance at p = <0.07. Here Group I was worse at leading peers than Group II but taken together with B5, Leading Peers Successfully, this is seen overall to be the product of more attempts altogether by Group I children to lead peers:

	Time 2	- Time 1	Difference
Group I x	0.84615	1.20	= -0.3538
Group II x	0.10000	1.0000	= -0.09

Variable B17, Expression of Affection to Peers, was also identified by Step-wise Discriminant Analysis as identifying Group I children at Time 2 as being better at expressing affectionate feelings to peers:

	Time 2	- Time 1	Difference
Group I x	2.3842	1.0000	= 1.842
Group II x	0.6000	1.66667	= -1.066667

A8, Unsuccessful Use of Adult as a Resource, approached significance at <0.097 but, in view of the greater success of Group I in Use of Adults as a Resource (A7) and the low levels of scores on A8, it is not really noteworthy.

It is of interest that significant and near significant differences in levels of behaviour were all found in categories involving peers. Discriminant analysis thus provides some support for the hypothesis that, generally, preschool attendance will lead to an increase of social behaviours. Certainly, as far as peer relations are concerned, significant increases tended to be in successful behaviour and decreases in unsuccessful behaviour.

Analyses of Variance

Forty-four separate variables on the Social Abilities checklist were converted to the eight major competence factors identified by White et al. (1978). These factors were: A1, Adult Attention (Categories 1-4); A2, Adult as a Resource (5-8); A3, Affection and Hostility Directed to an Adult (13-15); A4, Pride in Product (19-20); A5, Role Play (20-22); A6, Leading and Following Peers (5-11); A7, Affection and Hostility Directed Towards Peers (17-19); and A8, Competition with Peers (20-23) (see Appendix C). It was expected that analyses of variance, based on means derived from scale scores,[12] would provide a group by time interaction or perhaps indicate a group effect.

A significant group effect showed up in A4, Pride in Product ($p < 0.001$).

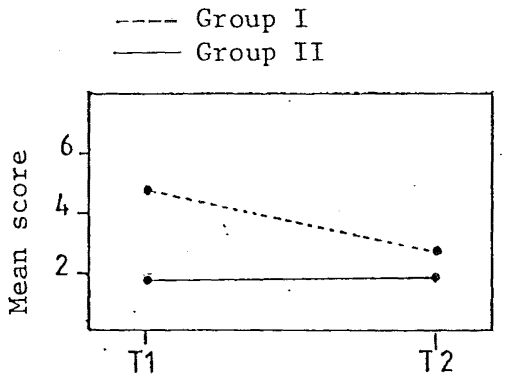


Figure 1. Pride in Product

[12] Scores for subjects on either two or three time periods, depending on group membership, are reproduced in Appendix A.

However, because Group 1 had a higher overall score on Pride in Product and a substantial difference between means, this may jeopardise some assumptions of equality of groups.

Playgroup Experience Co-variate

When previous playgroup experience, which had been close to significant (p 0.07) on the original Discriminant Function Analysis, was introduced into ANOVA treatment factors, children in Group I without playgroup experience produced a marked increase in levels for Gaining Attention of Adults (A1) in addition to earlier levels that might have occurred. Children at playcentre with prior playgroup experience reduced the level of Gaining Adult Attention.

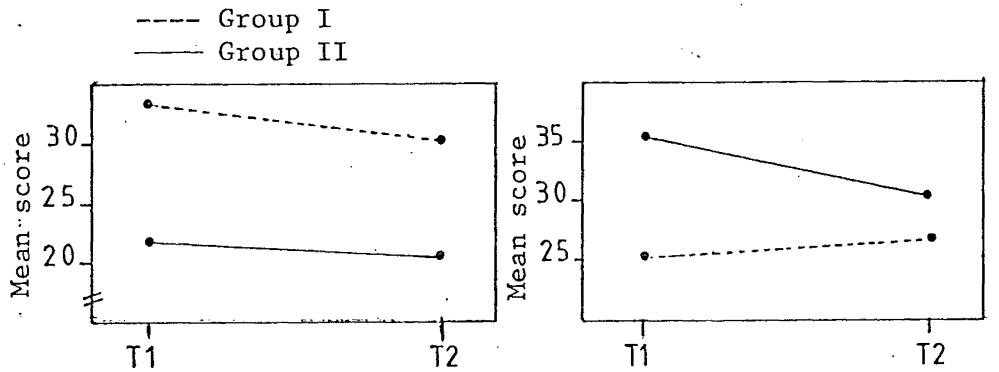
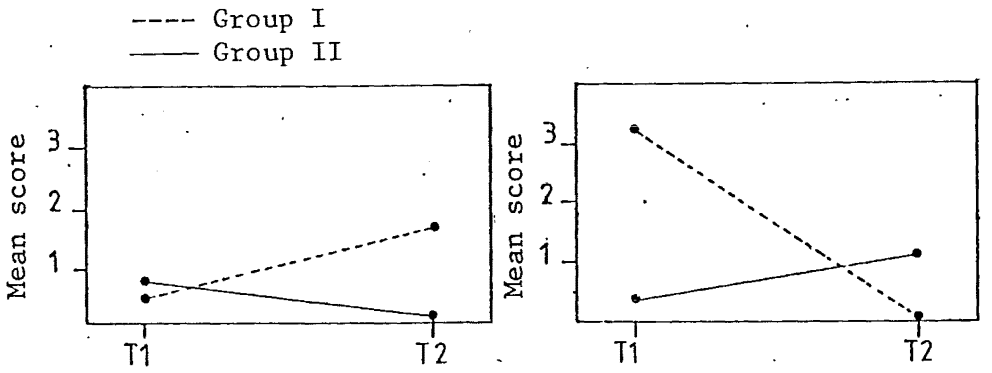


Figure 2. Gaining Adult Attention

This is contrary to notions that ongoing preschool experiences reduce the need for adult attention. This may be a temporary behaviour associated with the period of transition. Possibly incongruities experienced day-by-day in the playcentre may foster new needs for adult attention. Smith and Bain (1978) and Bloom-Feshbach (1980) have separately studied adaptive effects of seaking adult attention in new settings.

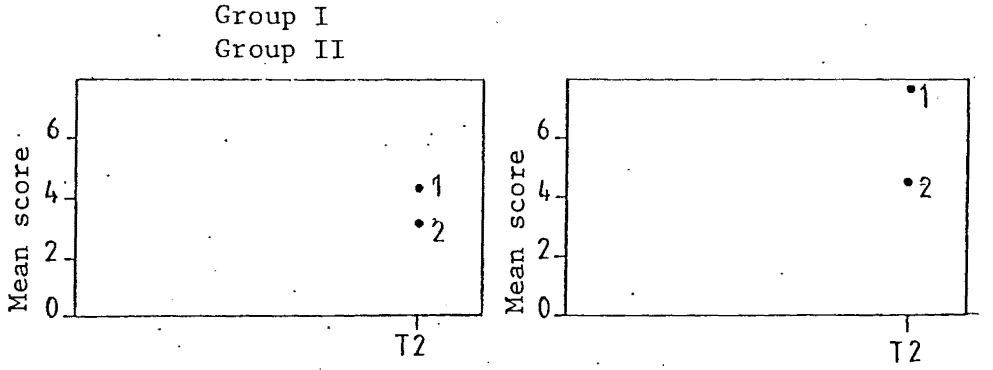
There was no real change in Group II children, whether they had had playgroup experience or not, when this was introduced as a treatment factor in analysing A5, Role Play. Group I effects have those children who had no prior playgroup experience evidencing reduced ratios of Role Play, whereas those who had playgroup experience prior to Playcentre adding variables to past experience have increased in this role play at home.



(a) With Playgroup (b) No Playgroup

Figure 3. Role Play

In A6, Leading and Following Pears, where prior playgroup experience was introduced as a treatment factor, Group I had a higher level of responses than Group II subjects.



(a) With Playgroup (b) No Playgroup

Figure 4. Leading and Following Peers, Time 2

But within Group I, those with former playgroup experience had a lower level of Leading and Following than those without much experience. Close examination reveals that the most interesting and largest changes occurred to those children in Group I without previous experience, for they markedly increased their Leading and Following Peers levels as evidenced in the separate graph for Group I below.

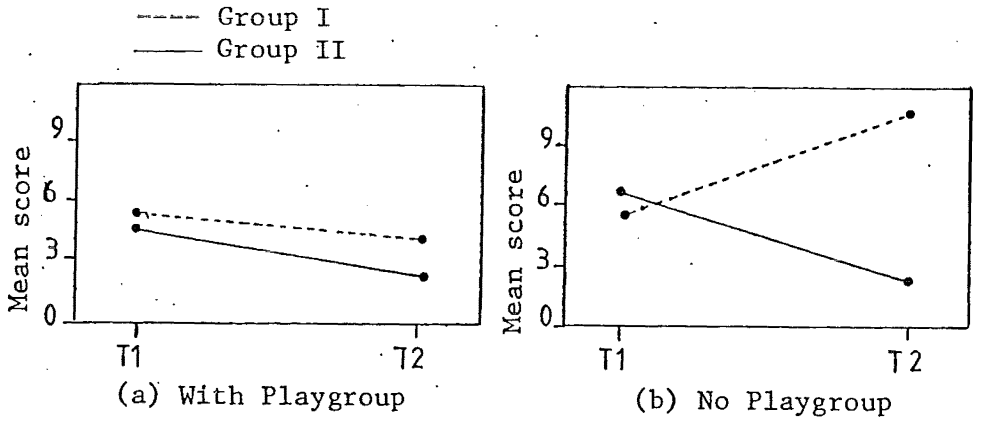


Figure 5. Leading and Following Peers

The Expression of Affection and Hostility to Peers (A7) also showed an increase by Group I children on this measure, largely due to those children without previous playgroup experience showing a marked increase in these types of interactions with peers. Group II has declined, which probably only reflects sampling error for there does not seem to be any reason why a decline should be noted.

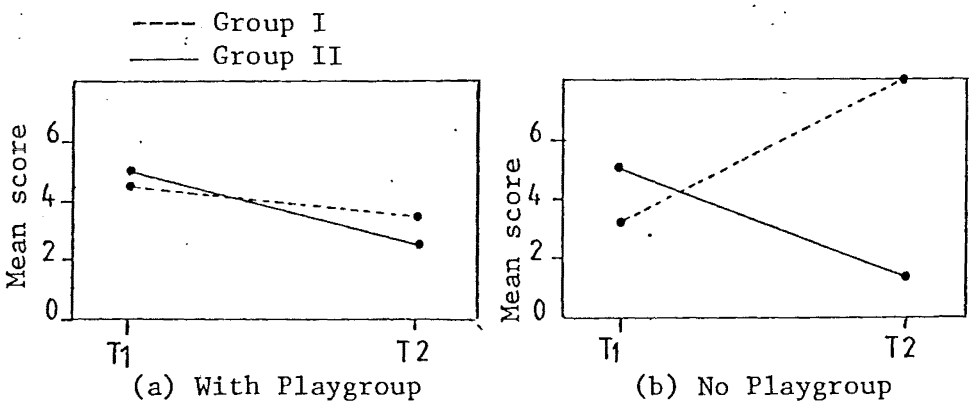


Figure 6. Expression of Feelings to Peers

The similarities of the effects of playgroup experience on these competence factors are of interest. It may be that this is an effect of the introduction to a new set of experiences (or a transition) and that it may not be lasting.

Family Position Co-variate

Because there is some evidence that family position is related to social behaviours in preschool settings, family position was introduced into ANOVA treatment factors. Figure 7 shows Time, Group and Family Position effects on the competence factor A3, Expression of Affection and Hostility towards Adults.

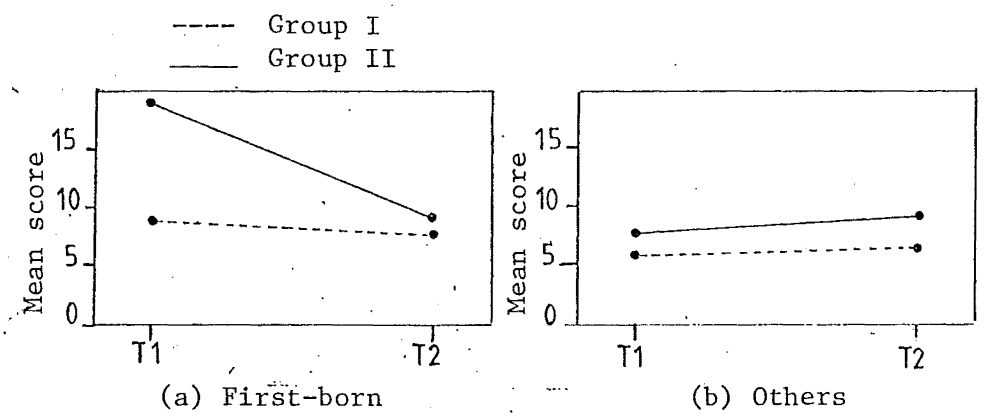


Figure 7. Expression of Feelings to Adults

First borns in Group 2 display a considerable decrease from Time 1 to Time 2 whereas although the trend is similar for Group 1 children, effects are slighter. Later-born children from both groups show a slight increase in the expression of feelings by Time 2.

When the Family Position Co-variate was used in analysis with A6 Leading and Following Peers Group 1 first-born children remained stable whereas a modest increase was noted for later-born children in this group. Again a reduction in levels by both first- and later-born Group 2 children is difficult to interpret.

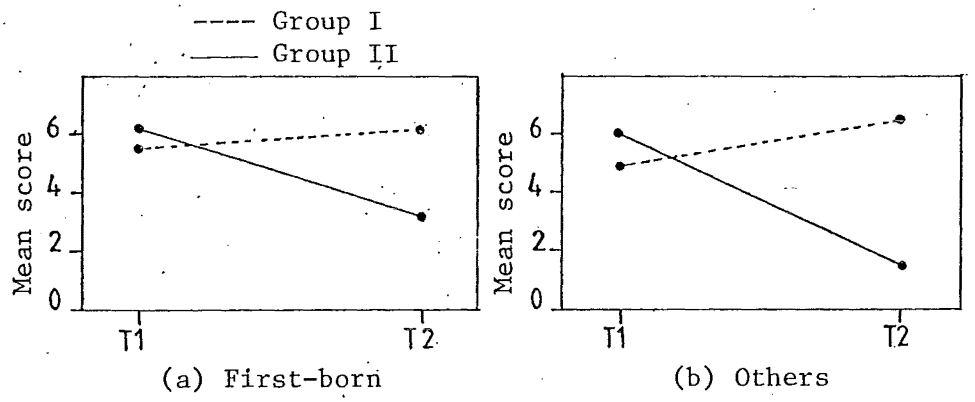


Figure 8. Leading and Following Peers

The family position co-variate and A7, Expression of Feelings to Peers, also produced some changes in levels. There was a slight increase for both first- and later-born Group 1 children, suggesting an effect other than family position, which may have been playcentre experience. Both first-born and later-born Group 2 children decreased Expressing Feelings to Peers in home although the decrease was slight for first-borns and considerable for later-born children.

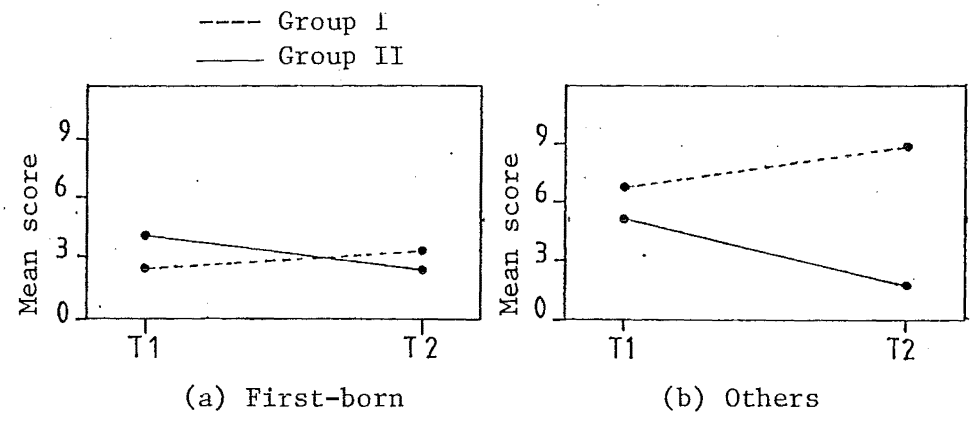


Figure 9. Expression of Feelings to Peers

Analysis of Variance with IQ co-variates took out that part explained by IQ. Because differences in intelligence were not significant this provided little material for comparison. Scale 7, Affection and Hostility towards Peers showed significant differences between groups from simple main effects at p 0.03. Basically, Group 2 decreased between times and Group 1 remained constant across times. There is no obvious explanation for this increase but a note must be added that in some cases data revealed no main effects, nor no interaction effects, yet simple main effects appeared. The reason for this is the method used in the "Teddy Bear" repeated measures programme (Wilson 1979) to compensate for unequal cell sizes.

Within Groups Analysis of Variance

When variance within Group 1 (the early start children) over three observations was examined the factor A1, Attention of Adults score, was found to be at significantly less high levels in the play-centre environment (at p <0.01 on Duncan's new multiple range[13] test).

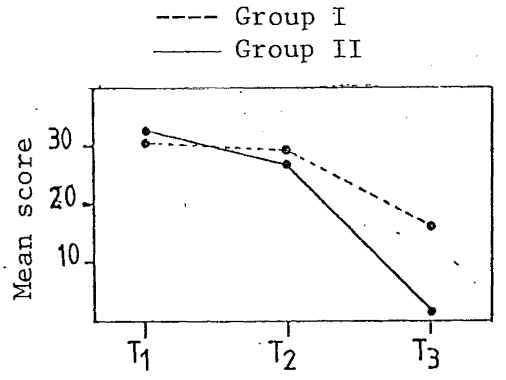


Figure 10. Attention of Adults

[13] See "Teddy Bear" programme (Wilson 1979).

The decrease of this type of behaviour in playcentre obviously appears to be related to the parallel increases in peer interactions already noted in Group 1 children in the second home observations.

Consequently, it is not surprising to find significant differences in all time factors involving peer interactions. In Leading and Following Peers (A6) there are significant differences between Time 1 and Time 3 ($p < 0.05$ on Duncan's Multiple Range test). Basically, playcentre appears to lead to higher levels of the same activities at home and explains some of the earlier results.

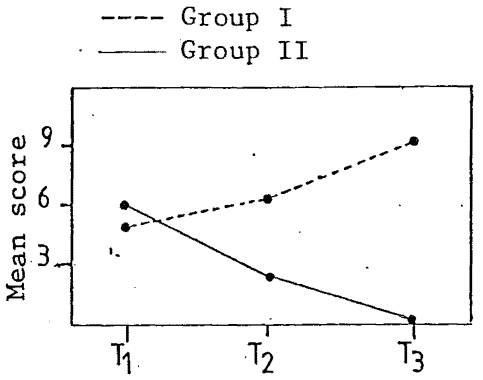


Figure 11. Leading and Following Peers

In the Affection Hostility factor (A7) there are differences between Times 2 and 3, suggesting setting differences. Significantly less hostility and affection was expressed to peers at playcentre ($p<0.05$ Duncan's Multiple Range test). Relative levels of activity at playcentre appear to again mirror the direction of change for the group attending playcentre. Lower levels of affection and hostility may be because relationships had not become sufficiently intense to produce rates as high as those experienced with either siblings or friends in the home.

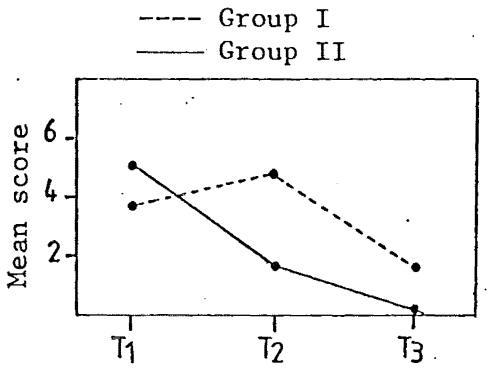


Figure 12. Expression of Affection and Hostility to Peers

A similar pattern was found in A8, Competition with Peers. Although this remains relatively stable in both home settings, the level of behaviours is significantly lower ($p < 0.05$ Duncan's Multiple Range test) at playcentre. Again a possible explanation may be that relationships are both more diffuse and less intense, especially at the earlier stages at preschool. A comparison of levels and types of interactions experienced in the home and in preschool after a longer period at preschool (6 months or 1 year) could explore the intensity of relationships hypothesis.

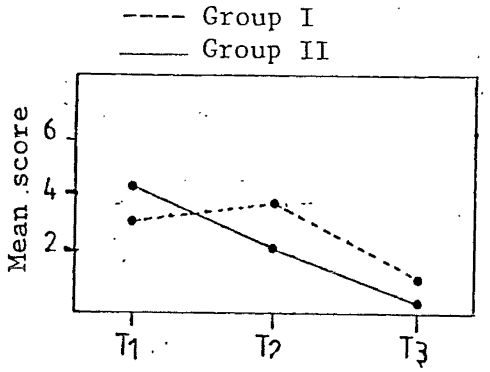


Figure 13. Competition with peers

Within groups analysis seems to suggest that playcentre attendance was the common variable involved in changes observed and that children, in their first weeks at playcentre, acted differently with peers and adults than they did in their home settings.

2. MOTHERS' PREDICTIONS

In order to test Hypothesis 3 that mothers are able to predict, from their knowledge of their child in a variety of situations, their child's ability to cope in a new setting (preschool) mothers were asked the following question at the initial home visit.

> How do you think you child will COPE with these aspects of being at playcentre?
>
> (a) Being away from the caregiver
> Easily Difficult Uncertain
>
> (b) Relating to other children, e.g. playing, sharing
> Easily Difficult Uncertain
>
> (c) Gaining the supervisor's attention
> Easily Difficult Uncertain
>
> (Home Visit Checklist, Appendix C)

Mothers of both early (Group I) and later start (Group II) groups answered the question. Reference to Table 7 shows similarities between the groups in the pattern of predictions, especially in part (a). Almost twice as many Group II mothers estimated their child would relate well to other children. As 50 percent of Group II mothers had complained of lack of suitable playmates for their child in their area this could be an overestimation, without a base of actual experience. Group II mothers seemed more uncertain about their child's ability to gain supervisor attention, part (c). Small numbers make the drawing of statistical inferences from differences between conditions meaningless, but it is of interest to note their existence in a

statistically homogeneous group. Discriminant analysis between the groups found no significant differences between subjects on the basis of mothers' responses to the three coping questions.

Table 7. Mothers' predictions of three aspects of coping behaviour in preschool expressed in percentages.

	Prediction								
	Easy			Difficult			Uncertain		
	M	F	%	M	F	%	M	F	%
(a) Absence of Caregiver									
Group I*	2	4	46	3	2	38	0	2	15
Group II	2	3	50	3	0	30	1	1	20
Actual behaviour (Group I only)	1	5	46	3	4	53	0	0	0
(b) Relating to Peers									
Group I	2	3	38	3	2	38	0	3	23
Group II	3	4	70	2	1	30	0	0	0
Actual behaviour (Group I only)									
(c) Supervisor Attention									
Group I	2	5	53	2	2	30	1	1	20
Group II	1	2	30	0	2	20	3	2	50
Actual behaviour (Group I only)	3	8	84	2	0	15	0	0	0

* Group I = early start group (N=13)
* Group II = later start group (N=10)

When considering the accuracy of parent predictions the responses from Group I mothers were compared with responses to the same questions from supervisors, after children had been at playcentre for six weeks. A check was made with mothers to gain their impressions of how their child had adjusted to the new setting. There was 100 per cent agreement between mothers and supervisors about adjustment to playcentre after

six weeks. Four mothers accurately predicted their child's behaviour on all three aspects of coping behaviour, five were able to predict accurately five of the three, and four were able to predict only one aspect. Seventy per cent of mothers of first-born children (N=7) in Group I were able to predict correctly for part (a) and 57 per cent for parts (b) and (c). The greater opportunities for interaction with parents enjoyed by first-borns has been commented on by B. White (1979) and may be an explanation of higher predictability. By contrast, two mothers who had older children with preschool experience were able to predict all three categories accurately, which suggests that knowledge of both setting and child is important. The necessity to take subjects as they appeared and consequent inability to match groups on all variables meant that of the eight girls in Group I seven were first borns, so that drawing conclusions from sex or birth is not feasible. Mothers of four of the five Group I boys (all later borns) predicted (a) accurately, (b) with 80% accuracy and (c) with 20% accuracy compared with mothers of girls [N=8, (a) 75%, (b) 50% and (c) 50%]. These results do suggest potential interest in separating the effects of birth position and sex in the context of a transition period by stringent matching of groups.

Mothers of boys were more accurate in their predictions of their child's behaviour in the absence of their parent than mothers of girls, where of two children predicted uncertain both proved difficult. There were no sex differences in accuracy of predictions about their child's ability to relate to other children. Of the three mothers uncertain in this category, two children proved difficult [the same two as in (a)] and easy. In part (c) of the seven expected to adapt easily, six did so and one proved difficult. Of the four predicted difficult only one proved so, with one of the two predicted uncertain proving difficult

and one easy. The high ratings by supervisors on this category may suggest an element of "professional pride" in their responses as it is part of their professional task to make themselves accessible to children and to make the settling-in period as easy as possible. The similarity of mothers' predictions suggests, however, that these were accurate estimations (although parent and supervisor explanations of why the children reacted in certain ways might differ).

White et al. (1978, p. 453) stress the psychological importance of a child's ability to gain adult attention for intellectual and social competence. That 84% of the Group I children had this skill establishes a satisfactory basis for future educational experiences. The greatest difficulties for children occurred in being away from the caregiver (53%) and relating to other children (61%). These results become even more unsatisfactory when combined with the knowledge that these were the areas in which mothers were most likely to underestimate difficulties [(a) 38%, (b) 38%].

Six weeks after commencing preschool only two of the seven children who had initially experienced difficulties in separation-dependency were still having problems and in both cases were being assessed by specialist staff. Transference of some dependency demands to teachers was shown by Bloom-Feshback (1980) to reduce separation problems in children starting preschool. Smith and Bain's (1978) unrelated study sampled children from a variety of preschool environments and lent support to dependency as an adaptive form of children's play. Individual data from these cases in this study would suggest that children with dependency problems are frequently reflecting family problems. One child in the study demonstrated admirably that although on the basis of SES and family intactness predictions about her adaptation to playcentre might be poor, in reality she had made the

transition with exceptional ease.

Disparity between parental expectations of difficulties in their child's relationships with peers and the actual experiences of the child is, perhaps, less surprising. All parents saw the main function of preschool as providing social opportunities for their child. It may be, that parents had had too little previous evidence (especially with first-borns) on which to base a prediction. Mothers of a group of four children, all identified in the individual profiles as having particularly good development, were all able to correctly predict their child's actual behaviour. The relationship of uncertainty with problems is suggested for, over the three categories where there were seven "uncertain" predictions, of these two proved easy and five difficult. Three possible explanations for this occur: (1) mothers of potentially difficult children were unable to recognize signs of possible problem behaviours, (2) mothers did not wish to acknowledge a possible difficulty for reasons of social desirability or other reasons, or (3) mothers were genuinely uncertain about their child's behaviour in the new setting.

There is no evidence that leaving the transition to preschool to a later age would reduce difficulties and the interest in social interaction with peers about age three is well-documented (Hartup 1965, 1970; White et al. 1978). Playcentre personnel tend to be flexible in their approach and the high adult-child ratio in groups and the policy of children starting separately makes identification and subsequent resolution of problems more likely than is the case in primary schools. This would appear to be a major advantage of a preschool experience and perhaps one that could be further exploited by routine observations of children's adaptive behaviours at this first major transition so that, if needed, new repertoires could be taught which might make the child's

transition to the much larger world of school a happier one. Play-centres already have existing channels for preparing parents for their child's preschool experience, where there could be a focus on the development of more realistic expectations and practical suggestions to ease the transition period.

In retrospect, it is unfortunate that the researcher did not ask an independent clinician to also make predictions of children's coping abilities, for the information gained during the initial home visit and from the first set of observations was probably more comprehensive than many clinicians or educators are able to gain when dealing with children in strange offices or assessment rooms. A comparison of mothers' predictions and clinicians' interpretations of data collected, plus the experiences of playcentre supervisors, would be of interest even with a small group such as this.

Although the method of data collection does not allow a statistical analysis of Hypothesis 3, it can be concluded that mothers do appear to show considerable insight into their children's coping abilities although possibly the extent of a mother's knowledge of the preschool setting should also be taken into account if her predictions are to be accurate. As noted, mothers and supervisors independently agreed on the actual behaviour of children in the new setting, although not necessarily on their interpretations of that behaviour. Bronfenbrenner's (1979, p. 4) reminder that, if one accepts the theoretical position of many psychologists and sociologists, what matters for behaviour and development is the environment as it is <u>perceived</u> rather than as it may exist in "objective" reality, seems apt at this point.

3. INDIVIDUAL DATA

Individual data were collected to provide information on everyday experiences of the subjects and the behaviour of other people as they related to the individual's stream of experience. It provided basic, useful facts about young children and their actual interactions within their environment. Information was collected from the initial visit (Checklist for Home Visit, Distal Adult Effects) and from the two home observations (Social Abilities Checklist). The thirteen Group I children were also observed at playcentre (Social Abilities Checklist) where their adaptation to the new setting was discussed with the supervisor and with their mothers (Coping questions in Home Visit Checklist).

The difficulties in establishing apparently natural observations and the imposition of the presence of observers were discussed in Chapter III. Generally, observers were accepted into homes easily by adults and children. Observers' subsequent behaviour, located in an unobtrusive part of the observation area with stopwatch and recording materials, was initially regarded as "strange" by many children who reacted with apparent curiosity rather than fear. Two observers recounted separate incidents where a puzzled three year old had spent considerable time trying to provoke them into speech and/or laughter. On another occasion an observer witnessed a child commit a "crime" (hiding a letter) apparently oblivious of observer presence. A warm-up period of 10 minutes was generally sufficient for children to ignore the observer (Wilton and Barbour (1978) suggested 20 minutes). Many of the observations took place during summer months and the outdoor life most New Zealander children experience[14] made it difficult at times to keep

[14] Only two of the 23 children lived in situations where there was no outside area available for play.

healthy three year olds, with minds on tricycles and swings, indoors. Where activity could be confined to a specific area, some observations were conducted out-of-doors and there were outdoor sequences in all playcentre observations.

Families experience varying rates of interaction with neighbours, friends and relatives and in some households where the child was apparently accustomed to adults coming-and-going, observer effect was probably least important. It was noticeable that families manifesting greatest anxiety and providing the least "natural-seeming" interactions tended to be in the lower SES levels (Subjects 2, 3, 10 and 15). Yet two other low status families (Subjects 6, 17) were particularly uninhibited and apparently oblivious of observer presence. The Social desirability factor is a possible explanation for the anxiety of some families who may have been inhibited by anxiety that their child would behave in an unacceptable manner in the presence of "experts" which may have been the way observers were perceived by some families, although this had not been the intention. It may be that higher status families are more sophisticated and more able to disguise anxiety, which does not necessarily imply that the observations of higher status children were any more naturalistic. Indeed observers commented on "contrived" settings with two higher SES families, those of Subjects 9 and 20. These differences illustrate a problem in interpreting the results of naturalistic observations. They also illustrate some of the ways families cope with outside agencies, and further exploration might prove useful for those involved in interactions with families.

From observational material gained during the study the differing reactions of children to situations within their home settings is of interest. Subjects 5, 8, 9, 11, 12, 15, 17, 18, 20, 21 and 23 were all first-born children, Subject 12 being the only child without a sibling.

Of this group Subjects 5, 8 and 18 were experiencing particularly smooth development in child-centred home settings whereas Subjects 12, 17 and 21 (from different SES levels) were causing difficulties at home which appeared to be the result of inappropriate parental management. Interestingly, both Subjects 12 and 17 appeared to flourish in the preschool setting, contrary to parental expectation. In this group of first children the arrival of a younger sibling seemed to have presented no difficulties for Subjects 5, 8, 9 and 18 but for Subjects 20, 23, 21 and 11 some ambivalence toward the younger sibling was noted. In some cases (Subjects 20, 23) mothers were aware of this, and attempted to give the older child as much attention as the demands of the baby allowed. At the time of the second home and the playcentre observations Subject 11 was experiencing difficulties in both settings, related to her mother's apparent rejection in favour of the demands of the newly-arrived baby. Some children displayed an elaborate lack of interest in the younger child (Subjects 20, 21 and 9) and needed parental encouragement to interact. Some may have used this as a means of gaining parental attention and approval. Subject 17 expressed very clearly her impatience with the demands of her baby brother, both through language and forcible physical means.

Of the later-born children only Subject 13 had a younger sibling and during all three observations she gave an impression of being unable to assert herself between the domination of her older brother and the requirements of the baby. Siblings two or three years older did appear to dominate later-borns (Subjects 1, 3, 13) but although Subjects 1 and 13 seemed inclined to accept this, Subject 3 used passive resistance to counter the demands of his older sibling. In the three families in the study where the male subjects (14, 6, 10) had two older siblings (male), they looked at their older brothers for entertainment rather than seeing

them as rivals for parental attention. These three boys were rather immature and the one other child with older siblings (one male and one female) also had less maturity demands placed upon her. In the playcentre setting Subject 14 was quiet but beginning to interact with peers and able to use caregiver resources to overcome problems. Subject 10 was without doubt the most immature child in the study (Subject 7 would probably be next) and both observers and playcentre personnel felt that his mother encouraged his dependency behaviours (which may have been true also for Subject 7, although to a lesser extent).

Although more girls enjoyed outdoor activities involving swings, tricycles, pets and climbing frames at home and at preschool, there was a stronger emphasis on outdoor, large muscle activities for boys. Only one girl (Subject 7) was not familiar with the drawing activity involved in the Goodenough-Harris "Draw-A-Man" test but the mothers of Subjects 3, 22, 2, 15 and 10 all commented on their son's unfamiliarity with such a task. Differences in play activities between the sexes have been observed in preschoolers (Silva 1976, Lott 1978). Families placing an emphasis on sex differences in tasks tended to be in the lower SES groups (Subjects 3, 22, 2, 15, 10, 7). There also appeared to be some sex differences in perceived language problems. Only the mother of one girl (Subject 7) expressed concern about her speech but mothers of Subjects 3, 2, 15, 6 and 10 all considered their son's language to be poor compared with peers. Although no assessment of speech or language was made, the negative relationship between speech and gross motor activity identified by White et al. (1978) appears relevant in this context. Silva (1976) has noted that 16% of New Zealand three year olds have gross speech defects but neither author differentiates by class or sex.

The representative profiles that follow provide impressions of the environments that these children developed in and their relationships within the microsystems of their homes. For those children also observed in a mesosystem setting, there is additional information about their adjustment to a wider environment. (Profiles of subjects not included here are in Appendix B.)

(i) Profiles

SUBJECT 2.

Subject 2 was a SES level 5, Group I (H-G 91) boy with a six year old brother. Their modest, tidy home was in a back section and, as most of their neighbours were elderly, Subject 2 lacked companions except his brother.

The house was sparsely furnished but the children had a good number of toys of the constructive type. He had access to all the house and to the section where he played outdoors whenever possible on an old trailer or with his trucks in the dirt. In the first home observation a slightly older boy cousin was present and they watched 'Playschool' together, television being described as his favourite recreation. When the programme concluded Subject 2 left the other child playing in the lounge and followed his mother to the sink where she was washing, and played with a racing car on the floor alongside her. Although responsive to his attention seeking his mother seemed rather distant and did not participate in his play at all. The observer found the second observation the most unnatural situation in the whole study, with the family (both parents, Subject 2 and brother) sitting in the sparse lounge, with the two boys playing independently with cars and Lego on the floor in a very subdued way. They were all very aware of the observer's presence and his mother appeared anxious but unable to

alleviate the situation. There were long periods when nothing at all happened but in the last 10 minutes Subject 2 asked his father to help build a Lego construction and he attempted to involve himself in the task. Both boys became involved with their father's effort and the only spontaneous interactions occurred as they worked together. Afterwards their mother commented that normally the boys would have "fought more". The need to stay inside on a sunny morning had also had an inhibiting effect.

At Playcentre Subject 2 appeared to have been informed that he was to be observed and it was necessary for the observer to delay the observation period until he was accustomed to her presence. Even so, it took him a long time to settle into activity and this happened when he followed the lead of a girl who has already become his special friend at Playcentre in acting out television programmes. He coped with a rather aggressive male peer by calling the supervisor to help and seemed anxious whenever this child was in his proximity. Although he was diffident still the supervisor felt he was establishing himself with the other children and he seemed to have overcome the anxiety he demonstrated when first separated from his mother.

SUBJECT 7.

Subject 7 was a SES level 3, Group II, girl (H-G 83) with a five year old sister and a 13 year old brother. Their house and garden were neat, with a swing and tricycle outside for her use and free access to the house. Her toys (dolls and their equipment), books and puzzles were kept in a box in the living room and a favourite occupation was to dance to her own records of songs and stories. She was a very small, shy child who did not seem ready for social experiences with peers. Her mother reported that her two visits to the toddlers group had not

been a success, that Subject 7 had clung to her and had shown no interest in returning. She helps her mother with household tasks and in the garden and her mother gave the impresssion she was happy to have Subject 7 with her and relies upon her. She enjoyed visiting elderly neighbours who apparently made a fuss of her but had not yet gone there alone. Her brother spent a lot of time with her, reading and taking her to the park but her mother reported her sister was inclined to ignore her in favour of a school friend next door.

Subject 7 was a diffident, immature girl (with rather immature language development) who relied on her mother for direction and support. Subject 7's mother predicted difficulty on all three coping questions and did not appear anxious to introduce her to preschool where she will probably have to wait several months for a vacancy.

SUBJECT 8.

Subject 8 was a SES level 2, Group II, boy (H-G 113) with a sister aged five months. His family had recently shifted from another city and they had just bought their shabby old house with a large garden to provide appropriate space for the children and to be close to his father's work. Subject 8 was allowed free range over both and his mother found the location of the living room, where he generally played with his toys, at the opposite end of the house to the small kitchen, meant she could not see him while preparing meals. She saw this as a difficulty and they planned to re-structure the house as soon as finances allow. She had a warm, flexible approach and was available when required, offering help when it was asked for rather than directing his play. He had an affectionate relationship with both parents but tended to look for help from his mother. His father had a new job which required long hours away from home and his mother had coped with this by seeing he slept during the day, to enable him to stay up at

night when his father was home. He spent much time outdoors playing on tricycles or in the paddling pool with a same-age friend whom he sees most days.

Subject 8 was a friendly, sociable child with a warm smile and his mother reported he thoroughly enjoys the toddlers' group he attends with her. He had a wide range of toys and materials available and his mother was tolerant of his spreading them over the living area. He was very capable in constructing buildings and machines with his Lego set. His baby sister did not appear to impinge greatly on his life. His mother said she was a very happy, easy baby and Subject 8 appeared to barely notice her unless his parents drew her to their attention. His mother predicted that he would cope easily with Playcentre where he would start as soon as there is a vacancy. She expected that Playcentre would provide the family with social contacts in a new city.

SUBJECT 10.

Subject 10 was a SES level 4, Group II, boy (H-G some 86) who had two teenage brothers. Subject 10 was a socially immature, physically small boy 12 years younger than his next brother. His parents had provided him with the type of toys his brothers enjoyed at the same age, such as tricycles and toy cars, but he had disappointed them by displaying little interest in them. All the family tended to be over-anxious and protective, and during observations it became apparent that Subject 10 gained his parents' attention very effectively by whining and pattering his feet on the spot. When their attention was on him, the adults were so intent on directing, advising or questioning him that it became difficult to know what he wanted. Both his parents were talkative and when so engaged it was more difficult for him to engage their attention. Generally he was well disposed and biddable.

His language was clearer at the second observation and he appeared less shy. His mother reported that they were very pleased with his progress, they thought that Playcentre was helping him socially and that he related to other children although becoming upset if his mother attempted to leave him. It was apparent during the Playcentre observation that he actually had few interactions with other children and that his mother directed his play. The supervisor felt that he would gradually relate to other children when his mother was not anxiously hovering over him and to that end had encouraged her to help by reading to other children, where she was less constantly aware of him. Subject 10's most spontaneous behaviour (dancing gaily at the top of the fort) occurred when his mother was distracted by another child. He noticeably withdrew when his mother attempted to involve him in a game with other children and began to whine. Subject 10's development was possibly behind those of his agemates but it seemed likely that as he became familiar with children at playcentre (especially if his mother learnt to relax her efforts) he might begin to interact independently. His mother had correctly predicted he would have difficulty away from her, but her prediction that he would relate easily to peers was not supported. His mother had been uncertain about his ability to gain the supervisor's attention. The supervisor considered he had difficulty in this area.

SUBJECT 11.

Subject 11 was a SES level 3, Group I, girl (H-G score 87) whose baby brother was born during the period of the study. Subject 11's home was immaculate and set in an equally immaculate garden. She was well supplied with toys and books, although these were not particularly suitable. During the summer she spent most time outdoors on her

tricycle or visiting her "boyfriend" (mother's expression) next door. It was impossible to arrange observation periods to involve her father as he worked long hours and it seemed that her mother was largely responsible for her care. Her mother was calm and friendly, preferring to continue with household tasks and interacting with Subject 11 only when she need to be directed to a new activity or behaviour controlled. Subject 11 seemed a cheerful, socially mature girl although her mother suggested she was too dependent on her. During the second observation, after the birth of the baby, the observer considered the mother's attitude to Subject 11 was disturbingly hostile[15] and in marked contrast to her patient, gentle approach to the baby (although the baby was less than four weeks old, the home and children were immaculate). Several times Subject 11's "badness" was compared with the "good" baby. Her reaction was to sit in the corner of the room telling herself a story which the observer was unable to hear.

Her mother had predicted Subject 11 would cope well with all aspects of Playcentre but she was having difficulty relating to children there, apart from the boy she normally played with. Because they had destroyed other children's "creations" at the previous session, parents and supervisors had agreed that they should be separated for the session, their relationship being described as "too intense". Throughout the observation period she wandered about aimlessly, not settling to any activity although she sat on the supervisor's knee for several minutes, sucking her thumb, while a story was read to several children. The only peer interaction observed was when the adults relented and she was allowed to work at the puzzle table with her friend. Initially they played quite sensibly but gradually became careless, and started

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[15]The observer was so concerned that the mother was subsequently offered help.

throwing pieces about and laughing loudly so that they were separated again. Her mother's apparent withdrawal since the baby's arrival has contributed to her problems in making the transition to preschool.

SUBJECT 14.

Subject 14 was a SES 4 boy, in Group I (Harris Goodenough 95) with two teenage brothers. They lived in a small, neat house with a large, untidy section where Subject 14 spent a lot of time playing with the family dog and his tricycle. Another three year old had been spending the day with him while his mother worked, and started Playcentre with Subject 14. The living room had several cartons filled with toys, including the more complex belongings of the older boys, and the house seemed remarkably well organized. His mother, having checked the safety of the environment and provided materials, tended to leave the children alone while she finished her tasks. She was inclined to use television as a distraction when she was busy but was quickly available if needed. She was sensitive to the children's needs and showed considerable insight in dealing with both of them. Subject 14 was a quick but sociable child who expressed himself clearly and was able to assert himself in an effective way within his family and with his playmate. His mother expressed some doubt about his being forceful enough in the Playcentre situation but although he was one of the quieter children he was able to make his needs known and to engage in the activities he wished. He tended to play outdoors with his friend who was more adventurous, but in activities such as painting he spoke happily with the adults and children about him. The supervisor mentioned his (remarkable) generosity in sharing equipment with other children.

SUBJECT 18.

Subject 18 was a SES level 2 girl in Group I (Harris-Goodenough score 100) with a younger sister aged 17 months. The family lived in a pleasant, older house in a quiet street. The children had free access to the house which was furnished in a comfortable way and to the large backyard where they kept chickens and rabbits.

Her mother was a gentle, caring person who created a pleasant atmosphere for the children. The graph indicates Subject 18's high rate of attention seeking behaviour and use of an adult (directed usually to her mother but also to her father) as a resource. Her use of language is clear and well-developed so that she was able to communicate easily with her parents. Her mother was one of the few parents who had visited alternative local preschools prior to selecting Playcentre. Both parents demonstrated unobtrusive but effective parenting, able to be firm when limits were overreached. Subject 18 was a bright, confident child in her home setting, dominating her sister in a gentle way and happy to be involved in helping her parents with household tasks (dishes, folding nappies). She was a diffident, quiet child in the Playcentre, physically unsure of herself and hovering on the edge of rough and tumble outdoor play. Indoors she was more assergive and able to explain to the supervisor when another child had disrupted her play. The supervisor confirmed that she found rough play worrying, that her verbal skills allowed her to communicate easily with adults but that she had so far made little social contact with the other children. Prior to Playcentre Subject 18 had been accustomed to play on a fairly regular basis with an elder girl and her younger cousins. Her mother reports Subject 18 is enthusiastic about preschool and was most upset when they had to miss a session. Her mother had correctly predicted that she would easily manage to cope with being away from her and to relate to

children, and also correctly predicted uncertainty about gaining supervisor attention.

SUBJECT 20.

Subject 20 was a SES 2 girl from Group I (Harris-Goodenough score 91) with a seven month old brother. Although her parents chose their home as one designed for family living, there were clearly defined areas for play. Her playroom was well-equipped with suitable materials, toys and books and there was a pleasant fenced-in backyard with a swing for outdoor play.

Subject 20 was a reserved, independent child who spent a great deal of time with her mother who claimed she had lost confidence since the birth of her baby brother. She was interested and helpful with the baby but became strident in her attempts to gain her mother's attention when she was involved with him. Although quiet, she communicated well and was very firm with her father when he attempted to direct her drawing activities. Her mother said that she was able to experiment as she wished at home but observers felt that this would be within limits. Both parents are reserved and keep to themselves, but her mother appears to be warm and relaxed in her relationship. Subject 20 plays a great deal with two neighbouring preschool boys, usually outdoors on tricycles or the swing, and the only peer interaction she was observed in at Playcentre was with one of these boys, largely as unsuccessful attempts to gain his attention. Her mother still stayed at preschool with her, and most of Subject 20's interactions were with her, checking that she was still there. Her activity consisted of restless movement from one area to another, watching children but either unable or unwilling to join in. The supervisor reported that on one occasion when her mother was away briefly Subject 20 did participate with the group but clung to her when she returned.

Her mother was aware of this but anxious that Subject 20 should not feel rejected by her need to care for the baby and prefers to be available if needed. Subject 20's mother correctly predicted her coping behaviour.

(ii) Social Competence

The graphs in Appendix B depict scale scores for each subject on the eight competence categories assessed in the Social Abilities Checklist: A1, Getting an Adult's Attention; A2, Using an Adult as a Resource; A3, Expressing Hostility and Affection to an Adult; A4, Showing Pride in Product; A5, Adult Role Play; A6, Competes with Peers; A7, Expressing Hostility and Affection to Peers; A8, Leads and Follows Peers. Table 8 illustrates group means on each of the categories in order to enable comparison between an individual's scores and his or her group, or over all subjects.

Table 8. Mean scale scores on Social Abilities Checklist from subjects on both conditions.[1]

		Categories							
		A1*	A2	A3	A4	A5	A6	A7	A8
TIME 1									
Group I	χ	30.7 [1]	17.62	7.76	4.5	1.23	5.38	3.85	2.15
	Range	61-19[2]	33-10	12-0	12-0	9-0	15-2	12-0	8-0
Group II	χ	31.16	16.75	10.8	1.8	0.5	6.14	4.55	4.9
	Range	55-99	25-13	31-0	7-0	2-0	10-2	14-0	24-0
Combined Groups	χ	30.9	17.22	9.69	3.34	1.23	5.71	4.31	7.4
	Range	61-9	33-10	31-0	12-0	9-0	15-2	14-0	24-0
TIME 2									
Group I	χ	29.83	16.32	7.13	5.39	1.07	6.20	4.98	2.30
	Range	46-10	22-0	14-0	7-0	4-0	21-2	11-0	7-0
Group II	χ	27.74	15.39	9.0	1.7	0.8	4.42	1.67	0.8
	Range	53-7	25-13	13-6	5-0	3-0	5-1	7-0	5-0
Combined Groups	χ	28.93	16.06	7.95	2.21	0.96	4.42	3.54	1.65
	Range	53-7	25-0	14-0	7-0	4-0	21-1	11-0	7-0
TIME 3									
Group III	χ	13.41	1.16	2.7	2.0	0.69	6.49	1.92	2.61
	Range	20-0	16-0	8-0	5-0	5-0	15-1	7-0	16-0

* See category list.

[1] Unweighted data. See Appendix A for subject scores.

[2] Rounded figures. Group I, early start, N=13.
Group II, later start, N=10.

Scoring details are in the Social Abilities Manual (White et al. 1978, pp. 455-6). Because the interest in this study is in depicting social behaviours over time rather than overall competence, no attempt has been made to calculate an overall competence score. The concentration on adult scores only seemed inappropriate in this context where this interest is in a transition period when children are experiencing greater peer contacts. The conceptual basis and general validity of the rationale for the identification of specific dimensions of social competence is, as is claimed (White et al. 1978, p. 27) descriptively strong and the data presented here is intended to be used in a descriptive sense (see Part 1, Chapter IV for alternative analyses over time of data acquired via the checklist).

The Harvard project repeatedly identified procuring the service of another (or using an adult as a resource) as related to good social development (1973, 1978, 1979). Latterly White has queried when a high rate becomes too much or, in conventional psychological terminology, an index of dependency. Further explorations to ascertain adaptive levels of the use of adults as a resource and at what stage the behaviours may be considered nonadaptive would seem worthwhile. Separate studies by Smith and Bain (1978) and Bloom-Feshbach (1980) have both confirmed, from observational studies, that the level of dependency behaviours, as well as the type, is adaptively important. Both use of an adult as a resource and attention-seeking behaviour, which has also been identified as closely related to social competence, require the presence of an adult. White (1979) has suggested that close proximity with an adult is important for the development of these abilities and noted the high scores of first-born children, regardless of whether in treatment or non-treatment groups, whom he identified as having available to them twice as much parental attention as later-born

children. It was apparent that children identified in the study as developing smoothly received this type of parental availability. He makes a distinction between availability and adults "hovering" over children, and suggests that indiscriminant and continuous availability may be nonadaptive in that the child becomes unable to develop attention-seeking skills, a situation that appears to be illustrated in the case of Subject 10 (see Individual Profiles). Thus for a parent or teacher to be available is not significant, the quality of the response and where it leads to are the important considerations.

This is an area where ecological studies, with their emphasis on context, seem likely to identify the important social variables of fundamental significance in forming the personality of the child. The Harvard study estimated, after numerous observations in homes under "natural" conditions, that children spent a minimum of 5-10% and a maximum of 30-40% of their time in direct interaction with adults and children. White (1979) points out that a majority of a child's experience is untouched by social interactions and that infants and toddlers (here he is referring to children under three years) spend 4-5 times more time in activities that do not involve adults in interaction. A retrospective count of the number of social episodes in a half-hour observation (with a five second limit on each episode) indicates that children in this study spent between 30 and 50% of their time in interactions. Because this was a rough estimation only, no attempt was made to separate groups. It is unfortunate that this time consideration was neglected in the design of the study. White (1979) admits limitations of the checklist and of observational methods where observers must wait for behaviours to occur (or not) and that there is no apparent way to induce a child to demonstrate leadership or other social competencey (p. 120).

CHAPTER V

CONCLUSIONS

1. HYPOTHESES

(i) Hypothesis 1

This study provided support for Hypothesis 1, that there would be differences between the family interactions experienced by the children who had commenced preschool, and their home-reared agemates. Although the two groups were established as being similar on both demographic variables and behaviours recorded at the first home observation, significant differences between groups were apparent on several variables at the second observation. Discriminant analysis identified an increase in the gaining of peer attention ($p < 0.01$), and a decrease in the expression of hostility and affection to peers ($p < 0.01$) as differentiating the preschool (Group I) children from the control group. At similar levels at the first observation the use of adults as a resource occurred more frequently in Group I children at Time 2, although it was only the category of unsuccessful use of adult resource that approached significance ($p < 0.07$). When the eight competence factors, of which the preceding variables are components, were analysed the importance of prior playgroup experience emerged as a variable. When it became apparent that the location of suitable subjects without playgroup experience, as originally intended, was both difficult and probably ecologically unsound this variable was included in demographic material and was found to be close to significance at $p < 0.07$.

Overall, previous playgroup experience tended to reduce the impact of preschool so that although there were effects for all Group I subjects, these were strongest for children attending preschool who had no previous playgroup experience. Both Leading and Following Peers and the Expression of Feelings to Peers showed increases which, while not statistically significant, were marked enough to be of interest. The only adult interaction to emerge in relation to attending playgroup was the Gaining of Adult Attention, where again the most notable increase was in playcentre subjects without playgroup experience. The greater effects of preschool experience on home interactions of the non-playgroup children is of interest. Three children had previously attended a Toddlers' Group at the playcentre they now attended, but the remaining children with playgroup experience had attended a range of groups (Plunket, Council creche, Church creche and private nursery school). This suggests that lower rates of change in home interactions of Group I children with playgroup experience may be accounted for by the type of interactions available in playgroups, rather than prior experience of a particular setting. Analysis of variance with family position as co-variate produced effects that were less clear, for first-borns from both groups displayed less affection and hostility to adults at the second observation whereas later-born children showed slight increases. In Leading and Following Peers, Group I first-borns remained stable and later-born children showed a slight increase whilst Group II children decreased slightly. Only in the Expressing of Feelings to Peers were differences noticeable, and an increase in these behaviours by Group I children suggests that playcentre attendance may be the relevant variable, rather than birth position.

(ii) Hypothesis 2

The study also provided support for Hypothesis 2, that any changes effected by preschool attendance will be facilitative to good development of social behaviour. On the basis of comparisons of scores on the Harvard Social Abilities Checklist, increases in behaviours considered adaptive were noted in the playcentre (Group I) children. Levels of behaviour were higher for Group I in Gaining Peer Attention ($p < 0.01$), Leading Peers (especially by those without previous playgroup experience), Expressing Hostility and Affection at Home (again those with no playgroup experience showed a greater increase), Gaining Adult Attention (no playgroup related to an increase level of this activity). Decreases in activity levels were associated with less desirable categories, e.g. the Reduction of Physical Hostility to Peers ($p < 0.01$) and Leading Peers Unsuccessfully where it was apparent that playcentre children performed more of this latter behaviour overall, both successfully and unsuccessfully. Thus, there seems to be support for belief that attendance at preschool leads to increases of behaviours previously associated with well-developed social abilities by White and colleagues (1978, 1979).

When Group I children were compared across settings the direction of influence from playcentre attendance was clear. Only one social competence factor, Leading and Following Peers, was significantly higher in the playcentre setting ($p < 0.05$), where there was a marked increase in this type of behaviour. Hostility and Affection to Peers ($p < 0.05$) and Competition with Peers ($p < 0.05$) were both at significantly reduced levels to those observed at home for these playcentre children. That all three peer factors on the scale showed significant differences in behaviour between settings is of considerable interest. Whether these

would continue over time or whether these are effects associated only with the time of transition is open to speculation and worthy of further investigation. A tentative explanation for differences in peer interactions between settings is that the emotional qualities of interactions are on differing levels, with a greater intensity of interactions experienced in the home as reflected by the higher levels of expression of both affection and hostility and competition with siblings and peers. The high level of leading and following at playcentre may similarly reflect the opportunities for a greater range of probably less intense relationships. Both the Swedish study (1977, 1978) and Smith and Haggerty (1979) located significant levels of cooperative behaviours amongst children in daycare settings. The reduction of competitive behaviour in playcentre, observed in the present study, may be the reflection of an increase of cooperation with peers, greater than that experienced in the child's home setting. The failure of the Harvard study to include cooperative behaviour may be indicative of the particular macrosystem in which it was developed and is an example of loss of behaviours, because of the limitation of the scale to the concept of social competence.

Yet, attention seeking with adults was less high than in the second home visit ($p < 0.01$). When the playgroup co-variate was introduced, those children with previous playgroup experience had shown a reduction of this behaviour whereas those at preschool with no previous playgroup experience, notably increased this behaviour. Again the importance of playgroup experience emerges as stronger than any other differences within the group attending playcentre. Gaining adult attention was identified by the Harvard study as being important for the development of both social and overall competence, and the increased levels of attention-gaining at home for the group entirely

new to any type of preschool and reduced levels at playcentre by all Group I children may be an example of the adaptive nature of this behaviour. The children with some prior playgroup experience and consequently some experience of interactions with peers appeared to be less reliant on adult attention. The increased level of peer interactions at home after Group I children had attended playcente suggests that the interest in peer interactions, stimulated in the preschool setting, transfers across settings to interactions with siblings or friends.[14] The fact that the children with some playgroup experience, however slight, required parental and caretaker attention less than those without such experience, suggests that lessening demands for parental attention are likely to be an effect of continuing preschool attendance and that the latter group were manifesting some uncertainty during their transition to the wider setting. Both Bloom-Feshbach (1980) and Smith and Bain (1978) have commented on the positive adaptive effects of moderate levels of caregiver attention-seeking in preschool and daycare, and these children (Group I non-playgroup) may be exhibiting similar techniques.

It can be concluded, therefore, that children with preschool experience produce higher levels of behaviours than similar agemates without such preschool experiences, and that it is in the area of peer interactions that these differences are most clearly indicated. Any playgroup experience prior to preschool appears to lessen the impact of playcentre experience, and the group of children to exhibit greatest change were those attending playcentre without prior playgroup experience. The present study confirms an increase in peer interactions

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[14]Some friends also attended the same preschool, unfortunately these were not separated in analysis.

at preschool, which has frequently been noted as related to daycare experiences (Bronfenbrenner 1979), in levels of leading and following behaviours but a reduction of expression of feelings and competitive behaviours compared with levels observed in the home setting at the same age. There is a suggestion that the type of setting may be less influential than the opportunities for varied interactions with peers. Replications in different types of preschools, in differing adult-child ratios, would be needed before the function (or not) of adults in these increased peer interactions could be assessed.

(iii) Hypothesis 3

When mothers' predictions of how their child would cope with three aspects of preschool experience considered adaptively important (the ability to gain the supervisor's attention, to relate to peers, and to cope with their mother's absence) were compared with the actual experiences it was found that mothers of the children demonstrating the *best* levels of development, as judged by the criteria of Social Competence, were more able to correctly predict their child's behaviour in a new setting. More mothers were able to predict accurately how their child would adapt to their absence, which is indicative of an aspect of behaviour where mothers had the most experience upon which to base their prediction. They were more likely to underestimate the difficulties their child would experience in relating to other children and to overestimate their difficulties in gaining supervisor attention. Where mothers had few opportunities to observe their child interacting with other children (mothers of first children and/or mothers whose child, for various reasons, did not play with other children) their predictions were less accurate. Mothers whose older children had

attended playcentre might be more likely to predict their child's ability to gain the supervisor's attention but the over-representation of first-borns in the playcentre group did not allow this to be explored. Mothers and playcentre staff were in agreement in their assessments of how children had coped with their new setting. At the time of the playcentre observation, after six weeks attendance, only two children were still experiencing noticeable difficulties, suggesting both the adaptability of this group of children and confirmation of L.B. Murphy's earlier observation that "as soon as children discovered what to do, they became more alike" (1965). The majority of children were able to make the transition between settings relatively smoothly but for the few that did not, further observational studies at this period to separate variables contributing to ease of transition would seem worthwhile. In conclusion, mothers of children judged to be demonstrating good social development were most likely to be able to predict their behaviour most accurately. That mothers achieved greatest accuracy in predicting their child's absence from themselves, indicates that increased knowledge of the new setting and of what their child might be expected to experience, might provide parents with a more realistic view of their child's preschool experience.

2. ECOLOGICAL DESIGN

Many of the limitations of attempting, from naturalistic observational studies, to analyse the complex behaviours and interactions with adults and children of children in home and preschool settings were apparent in the present study. Although repeated observations are time-consuming and observational situations cannot be exactly replicated, they still appear the most ecologically

valid and rewarding means of analysing effects and change over time. Repeated measure analyses of variance ("Teddy Bear" programme, 1979) do seem to hold more promise of identifying underlying processes in human development that correlational studies. However, the limitation of the Harvard Social Abilities Checklist to the concept of social competence and the tenuous basis for scoring do not recommend it for any further explorations of the transition from home to preschool. Both the observational schedule, incorporating dependency and play behaviours, used by Smith and Bain (1978), and the transcultural code for molar activities developed by Nerlove et al. (1979) may be potentially more useful instruments in this area.

In this study volunteers from the Playcentre Association acted as observers, thus reducing the expense of this type of research but possibly jeopardising control of observers and ecological validity. (Observers were not aware of the hypotheses investigated, their task was to record naturalistic behaviours as they occurred.) It seemed that setting instructions, such as restricted areas for observations and no television, compromised "setting validity" for some families. Similarly, the impact of external events cannot always be accounted for. Although the presence of a new baby might be apparent, the effects of events such as a family quarrel may not be. Greater validity for the study could probably have been best achieved by further observations, possibly two prior to playcentre attendance and an observation of each child on their first day at preschool.

3. FUTURE RESEARCH

Throughout this study the need for the importance of context and the ecological variables contributing to that context have been

stressed. The importance of historic time, sociocultural context, parental behaviours and attitudes, and the need to identify the chains leading to a child's development have often been neglected in traditional developmental psychology. The demonstration in this pilot study of different levels of behaviours being produced in different settings suggests a potential for further detailed investigation of patterns of activities, roles and relations across settings to ascertain if the differences noted simply represent adaptation to a particular setting or whether they are lasting developmental influences. If the latter view can be supported, then Bronfenbrenner's (1979) assertion of the profound influence of preschool on children's development in industrialized nations would have some verification.

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GROUP MEANS **Time 1.**

APPENDIX A. SCORES ON ALL SOCIAL ABILITIES CHECKLIST CATEGORIES

PC	A1	A2	A3	A4	A5	A6	A7	A8
1	4.00000	1.60000	2.20000	1.60000	2.20000	0.80000	0.60000	1.00000
2	14.66667	3.66667	0.66667	0.66667	3.66667	1.00000	0.33333	1.00000
TOTAL	8.00000	2.37500	1.62500	1.25000	2.75000	0.87500	0.50000	1.00000

PC	A9	A10	A11	A12	A13	A14	A15	A16
1	0.40000	2.40000	2.60000	3.00000	0.80000	1.60000	0.40000	1.00000
2	3.00000	2.00000	3.33333	3.66667	2.33333	1.66667	0.33333	1.00000
TOTAL	1.37500	2.25000	2.87500	3.25000	1.37500	1.62500	0.37500	1.00000

PC	A17	A18	A19	A20	A21	B1	B2	B3
1	0.20000	0.40000	1.20000	2.20000	0.20000	1.40000	0.80000	0.60000
2	0.00000	0.00000	0.66667	2.00000	0.00000	1.66667	1.00000	1.00000
TOTAL	0.12500	0.25000	1.00000	2.12500	0.12500	1.50000	0.87500	0.75000

PC	B4	B5	B6	B7	B8	B9	B10	B11
1	0.00000	0.00000	1.80000	0.60000	0.20000	0.00000	3.00000	1.20000
2	0.00000	1.00000	1.00000	0.33333	0.66667	3.00000	0.33333	1.00000
TOTAL	0.00000	0.37500	1.50000	0.50000	0.37500	1.12500	2.00000	1.12500

PC	B12	B13	B14	B15	B16	B17	B18	B19
1	1.20000	0.40000	0.80000	1.00000	0.00000	1.00000	0.60000	0.60000
2	1.66667	1.66667	1.00000	0.00000	0.33333	1.66667	15.66667	1.00000
TOTAL	1.37500	0.87500	0.87500	0.62500	0.12500	1.25000	6.25000	0.75000

PC	B20	B21	B22	B23
1	0.40000	0.20000	0.00000	0.20000
2	1.00000	2.00000	3.00000	3.66667
TOTAL	0.62500	0.87500	1.12500	1.50000

GROUP STANDARD DEVIATIONS Time 1.

PC	A1	A2	A3	A4	A5	A6	A7	A8
1	5.47723	2.30217	2.28035	1.81659	1.92354	1.09545	0.89443	1.00000
2	22.81082	3.51188	0.57735	0.57735	4.04145	0.00000	0.57735	1.73205
TOTAL	14.01020	2.77424	1.92261	1.48805	2.71241	0.83452	0.75593	1.19523

PC	A9	A10	A11	A12	A13	A14	A15	A16
1	0.54772	1.94936	2.07364	4.63681	1.09545	0.89443	0.89443	1.41421
2	1.00000	2.64575	5.77350	6.35085	3.21455	2.08167	0.57735	1.73205
TOTAL	1.50594	2.05287	3.48210	4.89168	2.06588	1.30247	0.74402	1.41421

PC	A17	A18	A19	A20	A21	B1	B2	B3
1	0.44721	0.89443	1.64317	2.28035	0.44721	3.13050	1.78885	1.34164
2	0.00000	0.00000	1.15470	2.64575	0.00000	2.08167	1.00000	1.73205
TOTAL	0.35355	0.70711	1.41421	2.23207	0.35355	2.61861	1.45774	1.38873

PC	B4	B5	B6	B7	B8	B9	B10	B11
1	0.00000	0.00000	2.16795	0.89443	0.44721	0.00000	3.39116	2.16795
2	0.00000	1.00000	1.00000	0.57735	0.57735	5.19615	0.57735	1.00000
TOTAL	0.00000	0.74402	1.77281	0.75593	0.51755	3.18198	2.92770	1.72689

PC	B12	B13	B14	B15	B16	B17	B18	B19
1	2.16795	0.54772	1.30384	2.23607	0.00000	2.23607	0.89443	0.89443
2	2.88675	2.88675	1.73205	0.00000	0.57735	1.15470	20.42874	1.00000
TOTAL	2.26385	1.72689	1.35620	1.76777	0.35355	1.83225	13.43503	0.88641

PC	B20	B21	B22	B23
1	0.89443	0.44721	0.00000	0.44721
2	1.73205	2.64575	2.64575	3.51188
TOTAL	1.18773	1.72689	2.10017	2.61861

Group Means

PC	A1	A2	A3	A4	A5	A6	A7	A8
1	17.76923	2.76923	1.00000	0.76923	4.07692	0.53846	0.84615	0.38462
2	16.00000	3.10000	0.50000	1.50000	5.30000	0.50000	0.70000	0.00000
TOTAL	17.00000	2.91304	0.78261	1.08696	4.60870	0.52174	0.78261	0.21739

PC	A9	A10	A11	A12	A13	A14	A15	A16
1	2.07692	1.15385	5.07692	3.46154	2.84615	0.38462	0.23077	2.00000
2	1.80000	1.30000	5.10000	2.70000	4.10000	0.10000	0.30000	0.80000
TOTAL	1.95652	1.21739	5.08696	3.13043	3.39130	0.26087	0.26087	1.47826

PC	A17	A18	A19	A20	A21	A22	B1	B2
1	0.23077	0.00000	1.23077	1.38462	1.07692	0.00000	4.38462	0.46154
2	0.30000	0.10000	1.00000	0.70000	0.80000	0.00000	0.40000	0.10000
TOTAL	0.26087	0.04348	1.13043	1.08696	0.95652	0.00000	2.65217	0.30435

PC	B3	B4	B5	B6	B7	B8	B9	B10
1	0.84615	0.23077	1.00000	0.46154	0.30769	0.38462	1.15385	1.15385
2	0.00000	0.00000	0.10000	0.10000	0.00000	0.00000	0.10000	0.10000
TOTAL	0.47826	0.13043	0.60870	0.30435	0.17391	0.21739	0.69565	0.69565

PC	B11	B12	B13	B14	B15	B16	B17	B18
1	0.84615	1.46154	0.53846	0.46154	0.00000	0.00000	2.38462	0.69231
2	0.10000	0.20000	0.00000	0.00000	0.20000	0.00000	0.60000	0.20000
TOTAL	0.52174	0.91304	0.30435	0.26087	0.08696	0.00000	1.60870	0.47826

PC	B19	B20	B21	B22	B23
1	0.46154	0.61538	0.61538	0.53846	0.46154
2	0.20000	0.60000	0.50000	0.20000	0.30000
TOTAL	0.34783	0.60870	0.56522	0.39130	0.39130

GROUP STANDARD DEVIATIONS Time 2.

PC	A1	A2	A3	A4	A5	A6	A7	A8
1	9.13011	2.86222	1.41421	1.01274	2.21591	0.66023	1.06819	0.65044
2	12.65789	1.79196	1.58114	4.74342	3.83116	0.97183	1.33749	0.00000
TOTAL	10.57441	2.41045	1.47576	3.14661	3.01118	0.79026	1.16605	0.51843

PC	A9	A10	A11	A12	A13	A14	A15	A16
1	1.97744	1.90815	3.01279	2.47034	2.33973	0.65044	0.59914	2.04124
2	2.69979	2.16282	5.40473	1.88856	2.51440	0.31623	0.67495	1.13529
TOTAL	2.26592	1.97614	4.11111	2.22188	2.44464	0.54082	0.61919	1.78044

PC	A17	A18	A19	A20	A21	A22	B1	B2
1	0.59914	0.00000	1.53590	1.89466	1.60528	0.00000	2.87340	0.87706
2	0.94868	0.31623	1.49071	0.94868	1.31656	0.00000	0.69921	0.31623
TOTAL	0.75181	0.20851	1.48643	1.56417	1.46095	0.00000	2.96355	0.70290

PC	B3	B4	B5	B6	B7	B8	B9	B10
1	1.14354	0.59914	2.30940	0.51887	0.63043	0.96077	2.30384	1.67562
2	0.00000	0.00000	0.31623	0.31623	0.00000	0.00000	0.31623	0.31623
TOTAL	0.94722	0.45770	1.77711	0.47047	0.49103	0.73587	1.79481	1.36298

PC	B11	B12	B13	B14	B15	B16	B17	B18
1	1.28103	2.60177	0.87706	0.96742	0.00000	0.00000	1.93815	1.18213
2	0.31623	0.63246	0.00000	0.00000	0.63246	0.00000	0.96609	0.63246
TOTAL	1.03877	2.06514	0.70290	0.75181	0.41703	0.00000	1.80250	0.99405

PC	B19	B20	B21	B22	B23
1	0.77625	0.86972	0.76795	0.87706	0.77625
2	0.42164	1.07497	1.26930	0.63246	0.67495
TOTAL	0.64728	0.94094	0.99206	0.78272	0.72232

ANALYSIS OF VARIANCE MEANS

(Chapter IV, 1. Figures 1-13)

1. A4: TG means

	GI	GII
T1	4.5385	1.800
T2	2.6154	1.7000

2. A1: TGP means (P = Playgroup)

		P1	P2
T1	GI	32.833	25.935
	GII	21.667	35.277
T2	GI	31.183	26.833
	GII	19.750	31.179

3. A5: TGP means (P = Playgroup)

		P1	P2
T1	GI	0.0377	3.2500
	GII	6.666	0.42857
T2	GI	1.5555	0.0000
	GII	0.000	1.14286

4. A6: GP means (P = Playgroup)

	P1	P2
GI	4.8704	7.8750
GII	3.4000	4.4286

5. A6: TGP means (P = Playgroup)

		P1	P2
T1	GI	5.444	5.250
	GII	4.800	6.7143
T2	GI	4.2963	10.5
	GII	2.000	2.1429

6. A7: TGP means (P = Playgroup)

		P1	P2
T1	GI	4.222	3.000
	GII	4.777	4.9761
T2	GI	3.6487	8.000
	GII	2.3333	1.3810

7. A3: TGP means (P = Family position)

		P1	P2
T1	GI	8.8884	5.2500
	GII	18.667	7.4524
T2	GI	7.6389	6.000
	GII	9.000	8.9524

8. A6: TGP means (P = Family position)

		P1	P2
T1	GI	5.444	5.2500
	GII	6.000	6.2000
T2	GI	5.9630	6.7500
	GII	3.000	1.743

9. A7: TGP means (P = Family position)

		P1	P2
T1	GI	2.555	6.822
	GII	4.321	5.176
T2	GI	3.33	8.763
	GII	2.367	1.38

10. A1: TG means

	T1	T2	T3
GI	30.711	29.845	15.830
GII	31.159	27.750	0.000

11. A6: TG means

	T1	T2	T3
GI	5.3846	6.2046	9.1100
GII	6.1400	2.1000	0.000

12. A7: TG means

	T1	T2	T3
GI	3.8462	4.9872	1.5355
GII	4.9166	1.6667	0.000

13. A8: TG means

	T1	T2	T3
GI	3.1192	3.8798	1.0253
GII	4.2411	2.0173	0.000

SCALE SCORES FOR SOCIAL ABILITIES CATEGORIES

TIME 1

Group	A1	A2	A3	A4	A5	A6	A7	A8
I	19.93	13.5	5.0	3.0	1.0	7.0	9.5	0.0
I	19.5	13.5	8.0	0.0	4.0	2.0	0.0	0.0
I	27.0	13.5	12.0	2.0	0.0	3.0	2.0	8.0
I	23.0	13.0	7.0	1.0	9.0	15.0	12.0	8.0
II	44.0	17.0	31.0	0.0	0.0	2.0	7.0	0.0
II	8.786	0.33	0.0	3.0	0.0	11.0	2.0	6.0
II	39.0	25.0	8.0	2.0	0.0	7.0	9.5	0.0
II	17.0	16.0	17.0	6.0	0.0	2.0	0.0	0.0
I	35.4	33.25	12.5	4.0	0.0	11.0	2.0	0.0
I	38.0	10.0	10.0	5.0	0.0	2.0	7.0	0.0
I	21.0	16.5	5.0	7.0	0.0	2.0	0.0	0.0
I	36.24	29.20	12.5	9.0	0.0	2.0	0.0	0.0
I	23.0	14.0	0.0	3.0	2.0	10.0	11.0	0.0
I	25.0	19.0	6.0	1.0	0.0	2.0	0.0	6.0
II	37.8	18.0	13.0	1.0	0.0	14.0	6.0	6.0
II	55.0	22.0	13.5	5.0	0.0	7.0	5.33	9.0
I	38.17	19.67	7.0	3.0	0.0	2.0	0.0	3.0
I	61.0	19.0	9.0	9.0	0.0	10.0	6.5	13.0
II	33.0	19.67	11.67	0.0	1.0	2.0	0.0	0.0
I	32.0	15.0	7.0	12.0	0.0	2.0	0.0	0.0
II	27.0	15.0	2.0	1.0	0.0	10.4	14.33	24.0
II	29.0	13.5	0.0	0.0	2.0	4.0	5.0	4.0
II	21.0	21.0	12.0	0.0	2.0	2.0	0.0	0.0

TIME 2

Group	A1	A2	A3	A4	A5	A6	A7	A8
I	25.10	16.5	8.0	3.0	0.0	6.0	8.0	0.0
I	29.0	22.0	9.0	4.0	0.0	2.0	8.0	2.0
I	29.0	20.0	6.0	5.0	0.0	11.67	4.33	7.0
I	32.33	0.0	11.0	0.0	0.0	6.0	10.0	0.0
II	53.25	14.0	12.0	2.0	0.0	2.0	0.0	0.0
II	10.5	13.0	4.67	0.0	0.0	1.0	5.0	0.0
II	39.0	25.0	12.0	0.0	0.0	2.0	0.0	0.0
II	7.0	16.0	11.0	6.0	0.0	2.0	0.0	1.0
I	38.0	18.0	6.0	2.0	4.0	3.0	0.0	1.0
I	16.33	7.0	5.0	2.0	0.0	5.0	5.0	0.0
I	22.0	19.0	0.0	0.0	3.0	2.0	0.0	0.0
I	36.0	12.67	14.75	2.0	0.0	21.0	5.0	1.0
I	21.5	14.0	0.0	1.0	1.0	3.0	11.0	0.0
I	10.0	14.0	8.0	2.0	0.0	13.0	9.0	7.0
II	24.167	15.0	6.0	4.0	3.0	5.0	0.0	0.0
II	22.33	24.0	8.0	1.0	2.0	2.0	0.0	0.0
I	46.71	19.0	6.0	2.0	0.0	2.0	3.0	3.0
I	44.0	19.0	12.0	4.0	2.0	3.0	1.5	2.0
II	28.0	14.75	9.0	1.0	0.0	1.0	4.67	2.0
I	38.0	13.0	7.0	7.0	4.0	3.0	0.0	7.0
II	32.75	20.0	13.0	5.0	0.0	2.0	7.0	5.0
II	4.0	15.0	6.0	4.0	3.0	2.0	0.0	0.0
II	19.5	18.5	8.5	0.0	0.0	2.0	0.0	0.0

TIME 3

Group	A1	A2	A3	A4	A5	A6	A7	A8
I	14.0	13.0	0.0	0.0	0.0	15.0	0.0	0.0
I	13.5	13.0	0.0	1.0	0.0	11.0	0.0	6.0
I	15.0	10.5	7.0	4.0	1.0	2.0	0.0	0.0
I	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	17.0	16.0	0.0	1.0	0.0	7.33	0.0	0.0
I	11.0	13.5	6.0	0.0	0.0	2.0	0.0	6.0
I	15.67	15.0	0.0	3.0	0.0	6.0	5.0	6.0
I	10.0	8.0	6.0	5.0	0.0	2.0	7.0	0.0
I	15.67	13.5	8.0	5.0	0.0	1.0	0.0	0.0
I	20.0	14.0	0.0	3.0	3.0	11.5	7.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	10.0	6.0	0.0	0.0	5.0	2.0	6.0	16.0
I	14.0	14.0	0.0	2.0	0.0	14.6	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	15.0	14.0	8.0	0.0	0.0	2.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX B

PROFILES ON SUBJECTS NOT INCLUDED IN CHAPTER IV

SUBJECT 1

Subject 1 is a SES level 2, Group I (H-G score 109) boy with an older sister (aged 6). The family had recently arrived from another city and Subject 1 was enrolled at a toddlers group to provide social contacts which resulted in establishing a particular friendship with one boy. His mother had also benefited by becoming involved in Playcentre activities. Their house was pleasant and the living room where the children normally play was light and sunny, with cupboards for toys. They had been allowed to draw on the stripped walls prior to redecoration. During the summer Student 1 was often outdoors on his tricycle. Although the house was reasonably child-proofed, the low fence on to a busy street seemed inadequate for a curous three year old.

Student 1 was a lively, friendly boy who, in both home observations, appeared dependent on and dominated by his sister. He sought close contact with her which was sometimes exploited and at other times tolerated. (During the Playcentre observation Subject 1 still seemed on the outside and seemed to look at the activities of the more dominant children with envy. He was happiest when included in a building game with a group of peers.) His mother provided a suitable environment and play materials but interactios at home revolved around the giving of directions. Otherwise her relationship with Subject 1 seemed rather distant, although she was quick to provide comfort when he bumped himself. His father appeared shy of the observation situation and lurked behind a newspaper. His mother appears the dominant parent in child-rearing and Subject 1 rarely sought his father's help. His

attempts to control Subject 1's behaviour during the second observation were described as ineffectual. During the playcentre observation his mother was present for an informal meeting and Subject 1 frequently checked on her, moving away apparently happily, when she said she was busy. Both supervisors agreed he was "serene" when his mother was absent but commented on his tendency to be dominated by older children. His one friend was not present on observation day but they reportedly play happily together. He had not yet learned to ask adults for information or support. His mother had predicted he would have no difficulty being away from her and this was confirmed by his experience at playcentre. She had predicted some difficulty in relating to children and, as already noted, the supervisor commented that he tended to be dominated by children apart from his one friend. His mother's prediction of possible problems was not borne out by the supervisor who considered he had no difficulty in gaining her attention.

SUBJECT 3

Subject 3 is a SES level 4, Group I, boy (Class A, no H-G score) with a sister aged six. They had recently moved into their attractive house in a quiet street, and his mother complained of a lack of boys of his age for Subject 3 to play with (sex stereotyping was apparent in the few toys available to Subject 3 and his sister). He spent most of his time playing with cars or playing on lawn at the front of the house. No books were in evidence but his mother reported she read to him each night and that they all enjoyed singing together (they have a piano as well as a television in the lounge area). No score was recorded for the H-G, his mother saying he had never tried to draw and although he was cooperative he was not at all interested in the activity. Subject 3 is friendly and speaks clearly and he has no difficulty gaining her attention. His mother was rather shy and anxious, and all observers

felt that she would probably not normally have hovered over his every word and action as she did during the observations. Although she was extremely attentive and responsive, she provided virtually no extension of what he said or did. In interactions with his father Subject 3 was affectionate and followed his lead as he worked in the garden, bringing equipment as he was asked and also managing to create a diversion with the hose. His sister tended to be rather domineering but Subject 3 showed a degree of stubborness in his refusal to follow her lead.

In the Playcentre situation he played very happily by himself outdoors and it was only after a supervisor had explained that he must share the activity that he accepted the presence of another boy. They worked quite independently and the other child soon departed. The supervisor confirmed that his interest at present is in the equipment and materials rather than his peers. Otherwise, interactions were with the the supervisors or his mother. It was his mother's first session parent-helping and Subject 3 was very aware of her presence and found her inability to come exactly when he required puzzling but not upsetting. He had initially cried at her departure but now accepted her absence during the session and seemed absorbed in activities. It appeared that he had made little impression on the supervisor and that he rarely approached adults (most of the adult interactions graphed are with his mother). His mother's predictions of possible difficulty in being away from her and relating to children proved accurate but, contrary to prediction, according to the supervisor he had no problems gaining adult attention. In the light of the previous remarks it may be that professional pride coloured the supervisor's comment.

SUBJECT 4

Subject 4 was a SES level 3, Group I, girl (H-G score 87) with a 7 year old brother. They live with their separated mother in a small,

new house where little effort had been made to make it an attractive environment for children. She had free access to the street and outdoors, spending most time racing up and down the footpath on a tricycle with her friend from next door. There was no evidence of toys and during the first observation she played with the cat, teasing it with a piece of string. Although it was apparent on both occasions that her mother found her presence trying and suggested she move away and play, she was unable to offer suggestions or equipment that might have distracted the child. Her mother works part-time and a neighbour minds Subject 4 with her own daughter. This neighbour visited and they discussed their children's misdeeds in their presence. Reactions from the adults were inconsistent and the observer felt that during an altercation between the neighbour and her child Subject 4 clung to the stove for emotional support rather than her mother. When the neighbour left the atmosphere was more relaxed and her mother gave her more affection. She took up a clothes peg and sustained a "smoking" role play for several minutes, talking so quietly to herself the observer could not pick up what she was saying. During the second observation Subject 4 was rather tired and consistently sought her mother's attention. Her mother tried to be patient but was obviously exasperated and eventually sent her outside to play where she joined her older brother playing on the lawn. Her mother later commented that she found her fidgetty and tiring and her prediction that Subject 4 would easily cope with Playcentre may have been coloured by her wish for her to start as soon as possible. However, it proved correct. The supervisor commented that, because of family circumstances, she had been specially assessed by Playcentre personnel but was considered a happy, confident child with no apparent problems. When observed at Playcentre she was deeply involved in role play with a group of peers, obviously relaxed

and familiar with them, and able to welcome another child into their group. Her mother's comment that she seemed unscathed by a disrupted, early existence with many changes was borne out in the Playcentre situation. She seemed a happy child with sufficient resources to make the most of her situation.

SUBJECT 5

Subject 5 was a SES level 2, Group II (H-G score 104) girl with a brother aged 15 months. She lived in a well-cared for older type of house where she had access to all but the formal area and which had been well childproofed. During the summer the family lived and played outside in the leafy garden where there was a sandpit and paddling pool which both children used often. She had available high-quality manipulative toys and books which are very appropriate for her age. Subject 5 was an attractive, sociable child who had had frequent contact with a wide range of children. Her mother involved her in household tasks which became companionable learning experiences. Her mother had a quick sense of fun and Subject 5 responded to her lead with gusts of laughter. Subject 5 did not pay much attention to her small brother apart from cuddling him after he had grazed his knee. At the second observation, she was reprimanded at lunchtime for showing off and the observer felt she had been competing with the baby's "cuteness". Her removal from the table brought tears but she soon recovered her good spirits.

Although Subject 5 is on a waiting list and will start when there is a vacancy, her mother does not feel the need for preschool yet. She finds there is plenty for them to do at home and that friends and the weekly toddlers group offer sufficient social contacts. Her mother did not expect any difficulties about Subject 5 leaving her when she begins playcentre or with her relating to peers but was uncertain about

whether she would be able to gain the supervisor's attention.

SUBJECT 6

Subject 6 was a SES level 5, Group II, (H-G score 83) boy with two older brothers aged 10 and 8. His home was small, stuffy and over-crowded with belongings. The living area was dominated by a television set placed high on the wall, which appeared to be left on all the time. He had free access to the house but there was little space for play and his few toys were kept in the living room (cars, a colouring book and felt-tip pens). He spent much time playing on a rope swing made by the older boys in the rather bare back yard.

Subject 6 was friendly and cooperative but his mother, who was a talkative person, usually busy with crochet or knitting, rarely listened to him. She would have liked him to start Playcentre as soon as possible but there was no vacancy at present. The location of the home on a busy corner, in a neighbourhood where there are few children, made social contacts difficult for him and he was often lonely. His mother appeared to have little idea of interacting with or stimulating Subject 6. When asked how she thought he would cope with Playcentre it was obvious she had not given his reactions much thought. She did predict that he would cope easily away from her and relate easily to other children but she was uncertain about his ability to gain the supervisor's attention. His father appears to play a minimal role in child-rearing and Subject 6 largely ignored him. His middle brother shows considerable patience playing cars with him. When he smacked Subject 6, neither parent commented. Although his older brother was present for both observations they did not interact at all. Subject 6 managed quite well in an environment which was neither stimulating nor emotionally warm but possibly predictable and secure.

SUBJECT 9

Subject 9 was a SES level 2, Group I (H-G score 91) girl with a sister aged 5 months. During the study her family shifted from a town house with little outdoor space to a pleasant, suburban house with a large garden. Although she has access to most of the home, which is adequately childproofed, her mother gave the impression she would not tolerate mess. She was well supplied with better quality manipulative toys and materials to encourage creative play.

Subject 9 was an articulate, socially mature child who appeared to thrive on an atmosphere where her mother constantly bombarded her with questions and suggestions. Business and sporting interests mean that her father was rarely at home and, although he had a very warm relationship with Subject 9, he appeared to follow the mother's lead in parenting. Her mother, who was totally available for her children, had developed a pattern of visits, lessons etc. so that they were out each day. She set a high standard in behaviour and dress and could be firm with Subject 9 who accepted reprimands in a cheerful spirit. When Subject 9 was observed in the Playcentre setting her continuous questioning of actions of adults and peers was clearly an irritant. She was the most confident of all the children in the study but it was noticeable that she had already gained a reputation for "bossiness" and that although she approached peers confidently she was often ignored. Most of the interactions during the observation period were with adults either in successfully gaining their attention or in using them as a resource. Her mother had expressed uncertainty about how she would relate to other children, and predicted that she might find being away from her and gaining the supervisor's attention difficult. In fact, she had coped very well with the latter two aspects. Her mother had expressed a preference for the more formal approach of a kindergarten

and Subject 9 will probably leave Playcentre when a place is available.

SUBJECT 12

Subject 12 was a SES level 4, Group I (H-G score 78) girl who was the only child of her separated mother. They lived in a small neat house with her maternal grandparents, a temporary arrangement that was likely to continue until her mother was able to find their own home. The very tidy, adult-oriented environment seems inhibiting for a young child , and her mother was continually tidying away belongings. A doll, books and old advertisements to cut up seemed to be her play materials. Subject 12 was an attractive child with tremendous vitality and energy and enjoyed playing outdoors with two large dogs. Although her early existence was very unstable she seems remarkably happy and secure. Subject 12 dominated an older cousin (4 years) whom she saw often and who was observed with her on both occasions; Subject 12 was both larger and louder than the other girl. When the adults intervened Subject 12 cheerfully accepted her mother's reprimand. Her mother was a tense woman who spoke of the need to establish their independence in their own home. She cared for Subject 12 while both grandparents worked and did not seem to go out unless it is with her daughter. She planned to develop some hobby (unspecified) once Subject 12 was at preschool. Subject 12 had an affectionate, teasing relationship with her grandfather (which seemed to over-excite her at times) but her grandmother played little part in her life. At Playcentre Subject 12 was regarded as a favourite by the supervisor and had made a surprisingly straightforward transition. Although most of her interactions were with adults, she played happily with a group of peers at the dough table. She was a much more subdued child than at home and refused to attempt to finger-paint when invited (although her mother had

mentioned being able to play with messy materials as an advantage of preschool, she had rather stressed cleanliness and tidiness). Her mother felt that she had been more difficult to manage and cheeky at home since she had been at preschool. Her mother had predicted an easy transition and observations seem to confirm that.

SUBJECT 13

Subject 13 was a SES level 1, Group II (H-G score 78) girl with a 6 year old brother and a baby brother (one month at the initial interview). Her family lived in a pleasnt home where the children had free access to most of the house and section. She had available a good range of toys suitable for her age and her mother was patient and ready to guide her. The arrival of the new baby had reduced the time her mother has available for her, and between the baby's needs and her rather domineering older brother, Subject 13 was rather overshadowed. Her mother was prepared to answer her questions and requests but observers noted that her attempts to gain her mother's attention were frequently not noticed. At the time of the second home observation it was observed that Subject 13 appeared more confident in her relationship with her older brother and, as the baby was less fretful, her mother had more time for her. At home she was a friendly, helpful child, more puzzled by the baby's demands than resentful of his presence, as shown by talking to him in a friendly, humorous way. She spent a lot of time outside (summer) and when inside tended to watch television. Her one friend was a 9 year old who lived next door and played with her most days. Her mother expressed the view that she would be able to indulge in "messy" play not acceptable at home, at playcentre. When Subject 13 was asked to do the H-G drawing, her mother explained that she had never shown any interest in drawing. After six

weeks at Playcentre she had made little contact with other children and kept close to the supervisor. She responded enthusiastically and cheerfully to the supervisor's suggestions and happily spent some time pasting and painting. Overtures from other children engaged in the same activity were ignored and, when finished, she looked for further direction from the supervisor, waiting patiently until she was free. Subject 13 had learnt to use the resources of adults (and possibly her 9 year old friend is also in this category) and to gain their attention but seemed disinterested in activities involving peers at that stage.

SUBJECT 15

Subject 15 was a SES 4, Group II (H-G score 91) boy with a baby sister (1 year old). His family lived in a small, new house on a neat section with little space for play. Indoors the space for children's play was usually limited to the kitchen-dining area which was small and cluttered and where observers noticed a general lack of child-proofing. Toys tended to be limited to trucks and cars, and books were not in evidence. There was strong emphasis on Subject 15's masculinity and practical skills. His mother, who was at times exhausted by a highly active child looking for distractions and the demands of the baby, expressed concern about his language which was difficult to understand. Although she had a very affectionate relationship she had difficulty controlling him and tended to use smacks and threats to discipline him. Subject 15 had a good relationship with his father who seemed able to select tasks within his capability which give him a sense of achievement and responsibility. Subject 15 was a happy child, although a little uncertain how to please his mother who seemed at a loss to encourage him in activities that keep his interest. His relationship to the baby was rather ambivalent

and she had to be protected from his sometimes hostile actions. Until recently lack of transport and her inability to drive had kept his mother at home, but she had recently gained her driver's licence and expected to be able to get out more. She planned to do volunteer work at a local creche, taking both children with her. Such experiences may provide Subject 15 new opportunities to experiment with activities and make contact with age peers before he starts preschool and provide his mother with helpful models of interactions with children. His mother was uncertain about his ability to be away from his caregiver and to gain the supervisor's attention, whereas she expected him to relate easily to other children.

SUBJECT 16

Subject 16 is a SES level 2, Group II (H-G score 87) girl with an older sister who had recently started school. She lived in a pleasant house in a quiet cul-de-sac and her mother encouraged other children to play with her. There was a children's area in the neat garden. The house was neat and Subject 16's toys were kept in her bedroom and brought into the living area for particular games (and expected to be returned). Her mother enjoyed playing with children and was inclined to structure play during the observations. Subject 16's father had a good relationship with her and played a chasing game with her for some minutes. Both parents tend to "baby" her and appear more demanding of her older sister. Subject 16 had a bright smile and was easily provoked to laughter. Interactions with her older sister tended to develop into squabbles which their parents left alone and from which they both emerged quite happily. Her mother reported that Subject 16 has had "embarrassing tantrums" recently and that she feels that she accepts control from others more readily. This, and the hope that she

would develop friendships, make her hope that Subject 16 would soon gain a place in the local Playcentre. She seemed a cheerful, perhaps immature, child.

SUBJECT 17

Subject 17 was a SES level 4, Group I (H-G score 92) girl with a one year old brother. They lived in a crowded two-bedroom flat in an industrial area, where there was little space for outside play and no other children to play with. Little storage was visible and only cards and an old purse were available for play. The living area was cluttered with seemingly breakable belongings which looked rather precarious during rough-and-tumble play. Good quality children's books were used a great deal, however, and Subject 17 and her mother had exciting, dramatic sessions reading and acting out stories.

Subject 17 was a boisterous child, who was well aware that her mother felt unable to control her and who expected to get her way. Her mother was warm and untidy and (trantrums apart) they have a loving relationship, with her mother prepared to leave housework for the children. Subject 17 was inclined to see the requirements of the baby as an interruption and much of her mother's problems centred around this. When he was asleep Subject 17 has all her mother's attention and they are able to make ordinary household tasks highly entertaining. Her father appeared to play little part in the lives of the children. When observed at Playcentre Subject 17 was in the centre of activity on the slide with a group of boys and girls, accepting the need to give "turns" and shouting loudly. The supervisor has found her an assertive child with well-developed motor skills, who rarely comes inside but who seems to be accepting their rules of social behaviour.

SUBJECT 19

Subject 19 was a SES 2, Group II (H-G score 100) girl with an older brother who had recently started school. She had free access to the house and the well-fenced garden, and books and toys were spread around the living area. Her mother was innovative in using household materials for play and for encouraging learning from everyday experiences. Subject 19 was a confident, friendly child reflecting the warm supportive atmosphere of her home. This was one of the few households were parental sex roles did not seem clearly defined although her mother was the primary caregiver. The children tended to interact with their parents rather than each other during observations, but worked well together for some time on a collage. When it was necessary to intervene, this was done in a firm friendly manner and readily accepted. Since Subject 19's brother started school she has missed him and as there are no young children in the street her mother is keen for her to start at Playcentre. She feels that Subject 19 will adjust easily as she knows the supervisors and children from when her brother was there. The only uncertainty appeared to be about Subject 19's ability to control her bladder, her mother suggested that supervisors preferred children to be dry during the day and she was anxious that no formal toilet training be applied.

SUBJECT 21

Subject 21 was a SES level 2 girl, Group II (H-G score 108) with a one year old sister. The family had moved about several times because of the father's job and had just shifted into a new house after living with grandparents for the past five months. The house had been decorated and furnished in an expensive manner, not entirely suited to children, and her mother complained of the difficulty of keeping the

children off the furniture. Although good quality toys were available they tended to require adult assistance. At present there are no outdoor playing areas for the small section had yet to be developed and was largely mud. Subject 21 seemed a bright, cheerful child always in search of something to do. Her mother commented that she never played alone but generally alongside her (the mother), who liked her to need her, and to play games involving memory skills. In her mother's opinion she sleeps poorly and had been placed on the Feingold Diet for hyperactivity. Her mother was a warm friendly person but seemed tired and harassed, and her sensitivity to her children's needs appeared to be to the detriment of her own. She felt the past months had been difficult for the children and wanted Subject 21 to adapt to her new environment before beginning preschool. She had little contact with other children but seemed fascinated by her small sister. Subject 21 was generally very affectionate towards the baby although her interest was somewhat scientific. Subject 21 was an active, curious child who possibly lacked appropriate materials and opportunities to develop independence. Her mother predicted that Subject 21 may have difficulty being away from her mother and relating to children but that she would easily gain the supervisor's attention.

SUBJECT 22

Subject 22 was a SES level 2, Group II (H-G score 91) boy with an older brother who was at school. He was allowed free access to the house and section and frequently played at two or three houses in the same street with young children. He played outdoors a great deal, particularly on his tricycle. Toys, which tended to be cars, trucks and trains with no evidence of puzzles or books being available, were spread all over the living area and his mother seemed tolerant of noise

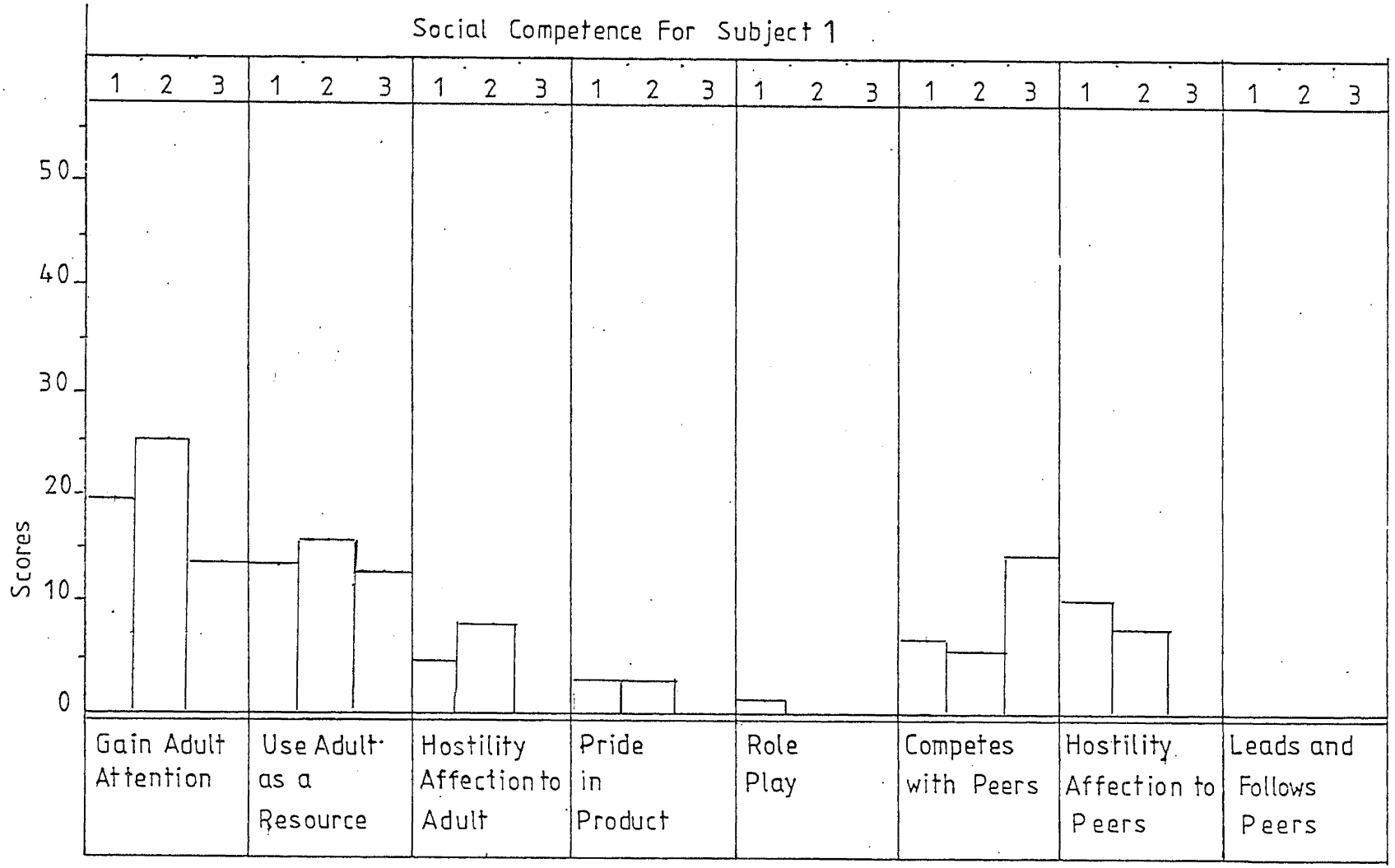
and untidiness. He seemed quite unfamiliar with drawing when doing the Harris-Goodenough test and his mother commented that he hated sitting still, apart from when watching television. He was a friendly, talkative boy able to discuss quite clearly a recent holiday with his mother as they looked over photographs. His mother encouraged his physical activities and helped to make a pair of stilts he was playing with. She spent a lot of time chatting with neighbours and Subject 22 was quite adept at interrupting to gain her attention. Both parents see their role as a correcting, directing one, waiting to right irregular behaviour with threats of "smacks" (not carried out during the observation periods). His mother expressed a belief that it was the task of preschool and school to "knock" discipline into children and seemed rather proud that her son was "uncontrollable". In separate interactions with his brother and a same-age peer Subject 22 was dominant and aggressive and his mother predicted that he would be in conflict with other children at preschool because of his refusal to share with others. She had left him at a creche occasionally while she did casual work, as his grandparents claimed they were no longer able to manage him. He had enjoyed the creche although he had been "in trouble" for breaking a toy. His mother expected him to experience no separation problems or to have difficulty in gaining caretaker attention. When playing by himself or interacting with either of his parents alone, he was happy and chatty. He would start at Playcentre as soon as a vacancy occurred.

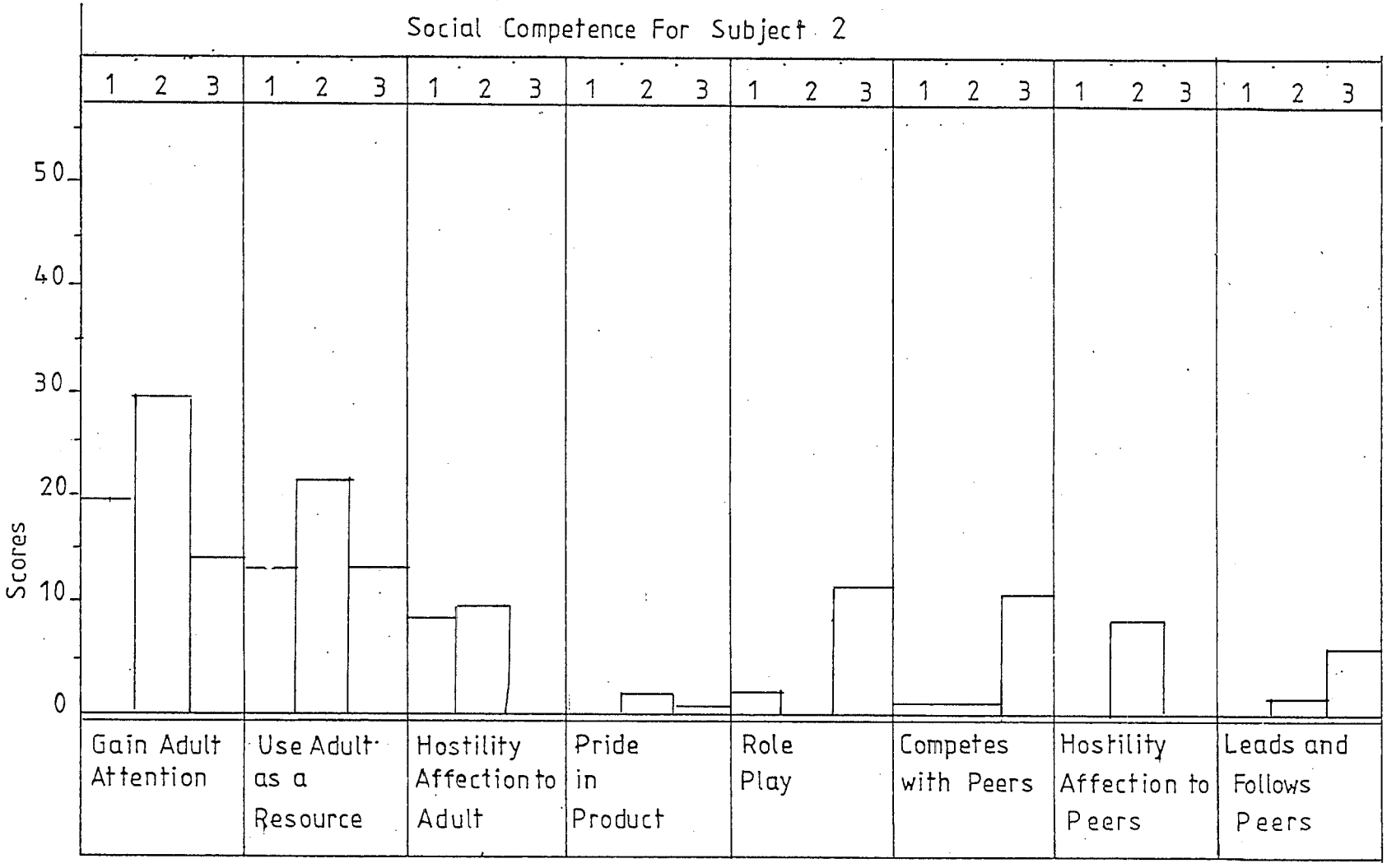
SUBJECT 23

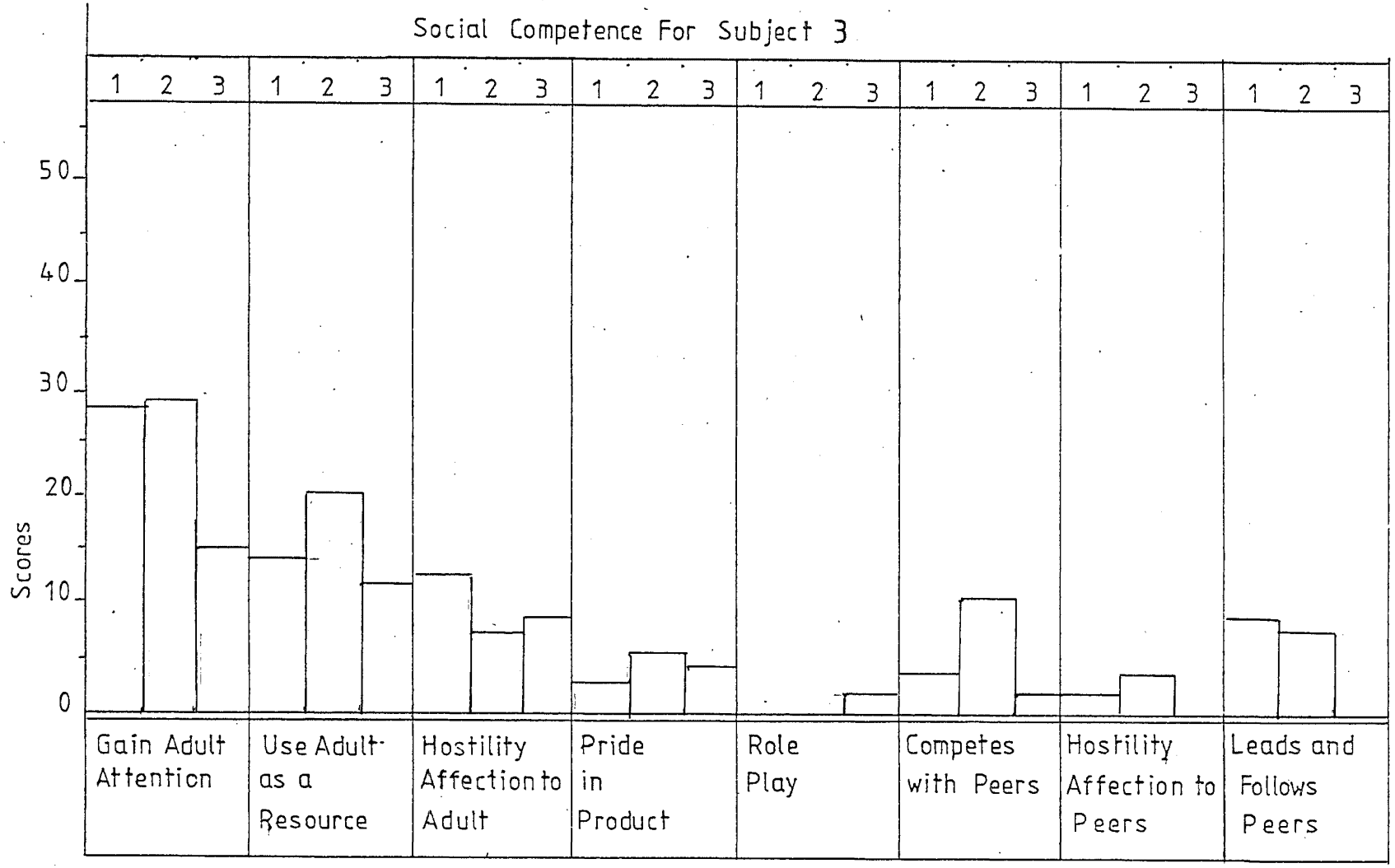
Subject 23 was a SES level 1, Group II (H-G score 104) girl with a baby brother, aged five months at the initial interview. The spacious kitchen and family room of her large home had recently been remodelled

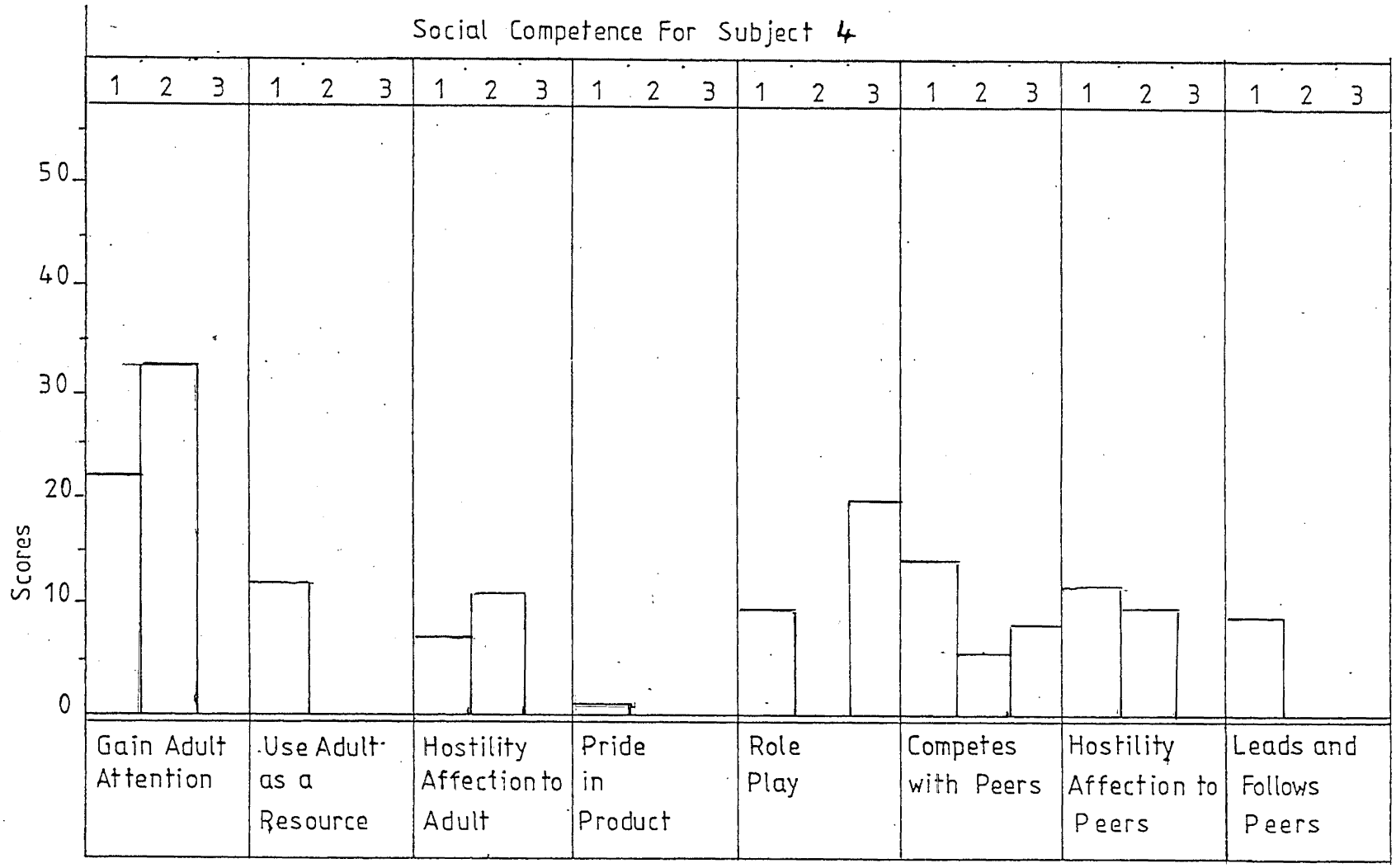
to suit the needs of a family with young childrden. Although the house was well child-proofed the need to protect antique furniture limited her access to formal areas. Outside there was a large, sunny backyard well-equipped for play and indoors she had available to her high-quality suitable toys, puzzles and books.

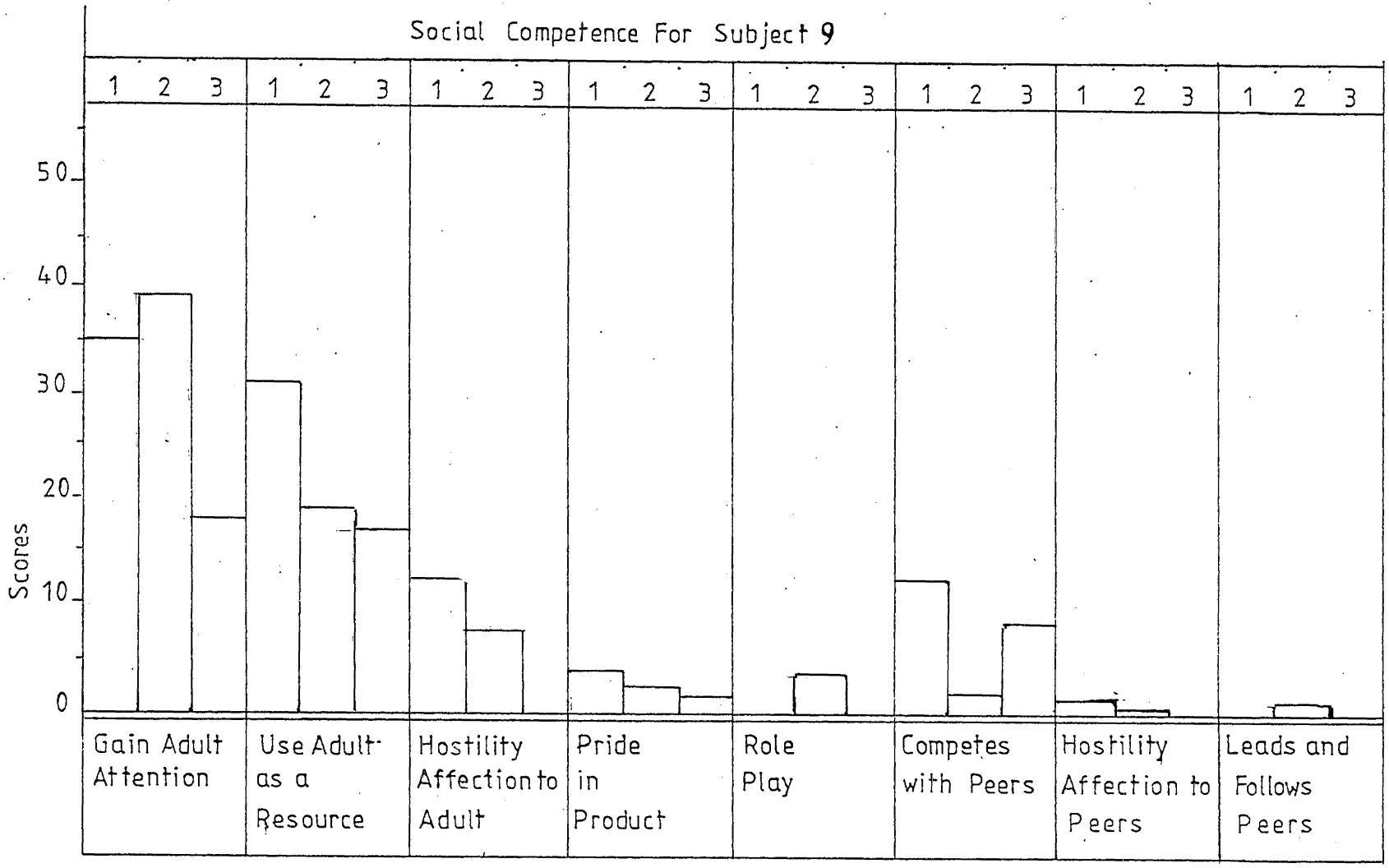
She had had little contact with children her own age and the large, private section did not encourage casual contacts. Her mother reports that she has only recently become aware of other children and was uncertain and shy with them. She was inclined to suck her thumb a great deal, but while her mother expressed the view that this was unimportant her father twice asked her to remove it. There seemed to be some conflict in parental standards set, her father expecting a high level of obedience whereas her mother had a warmer, more relaxed approach. She was a compliant child and relied on her mother for direction in play which was given in a friendly, encouraging way. Her mother encouraged her to participate in the care of her brother, who was up during both observations, but she tended to ignore him or to draw attention to herself by climbing on to her mother's knee and chatting. Her mother expressed some concern about her dependent behaviour and, although she expected that initially there might be some difficulty with adults and peers, felt that preschool would provide opportunities for social development.

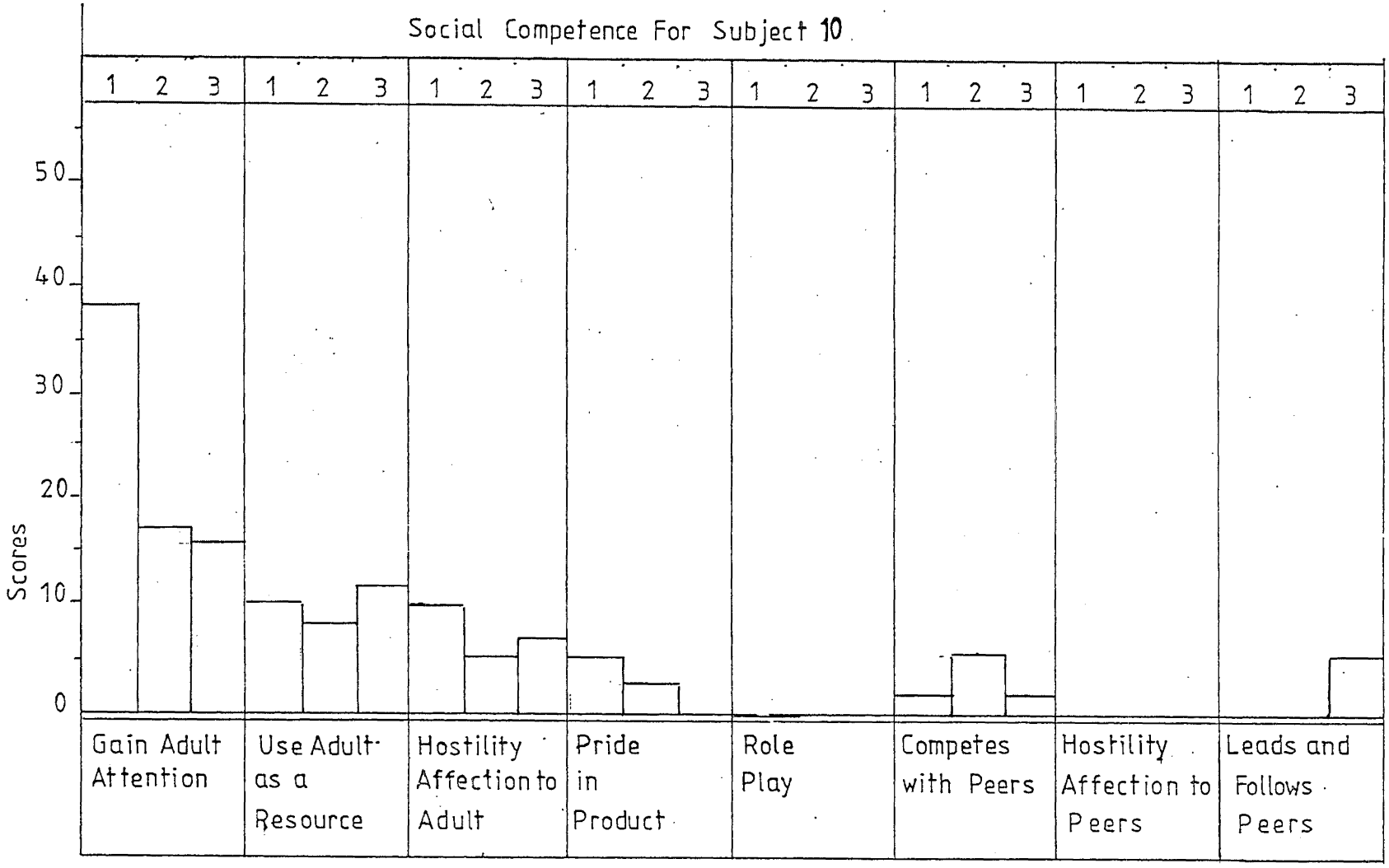

Social Competence For Subject 1
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
Scores
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

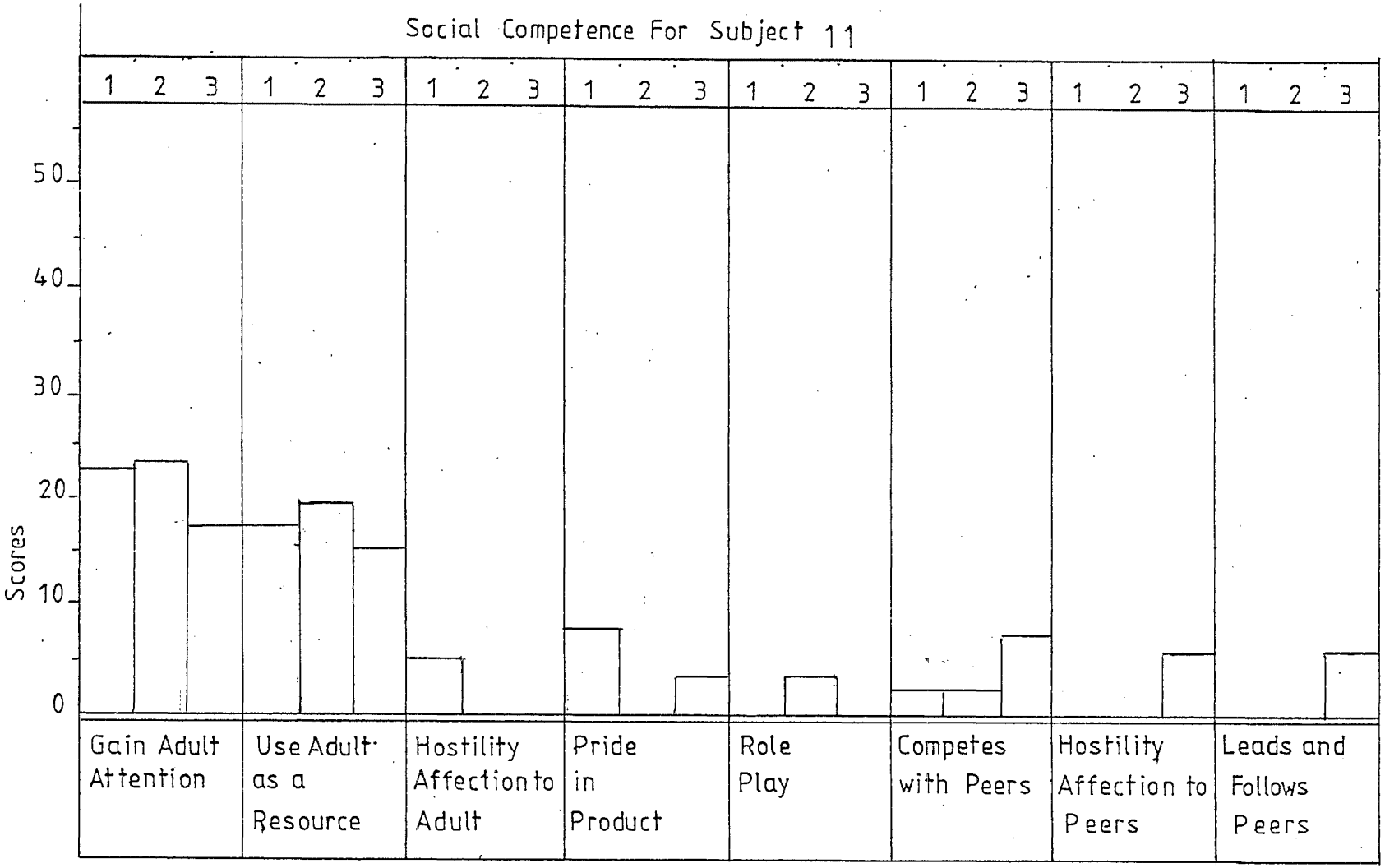

Social Competence For Subject 2
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
Scores
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

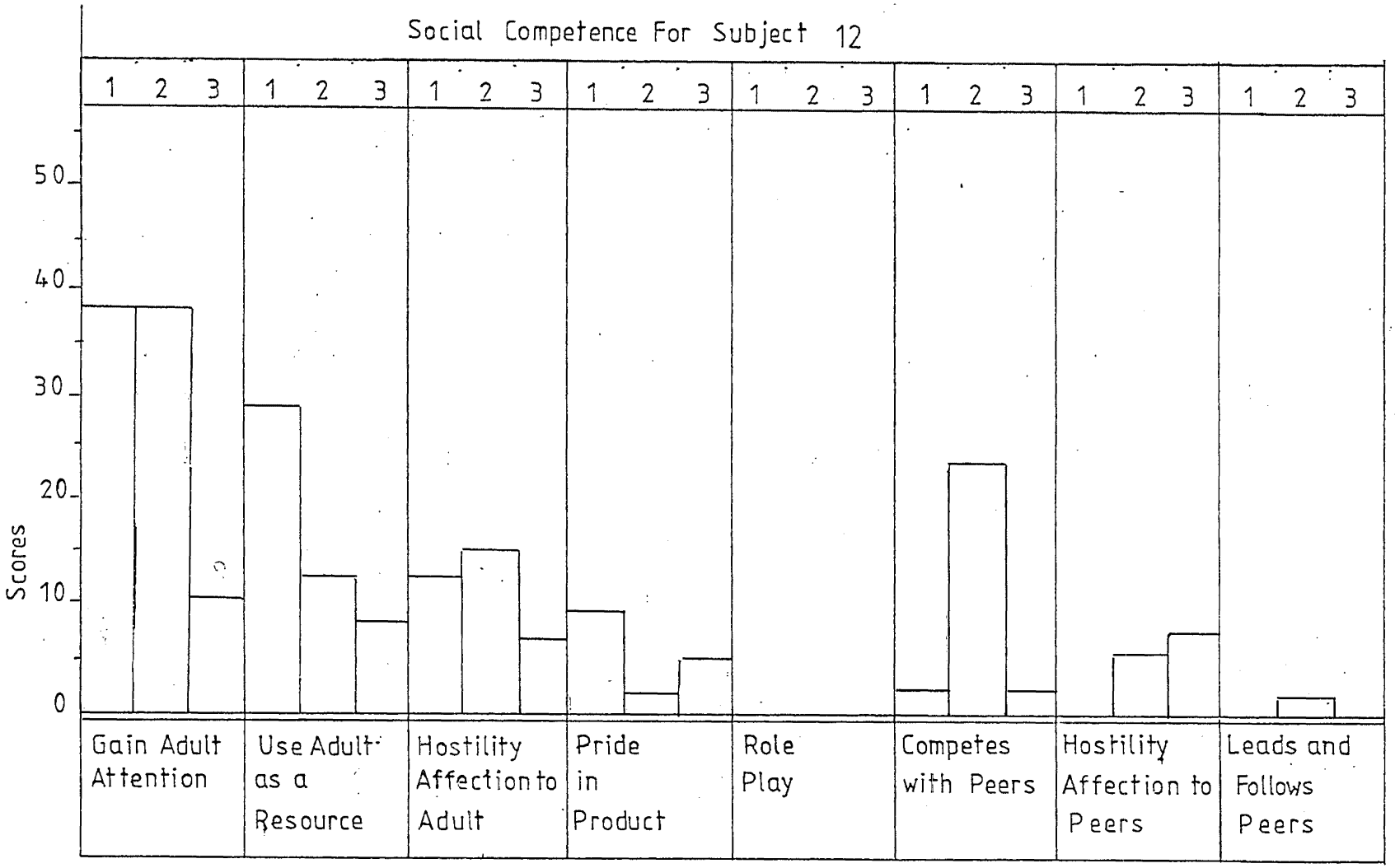

Social Competence For Subject 3
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

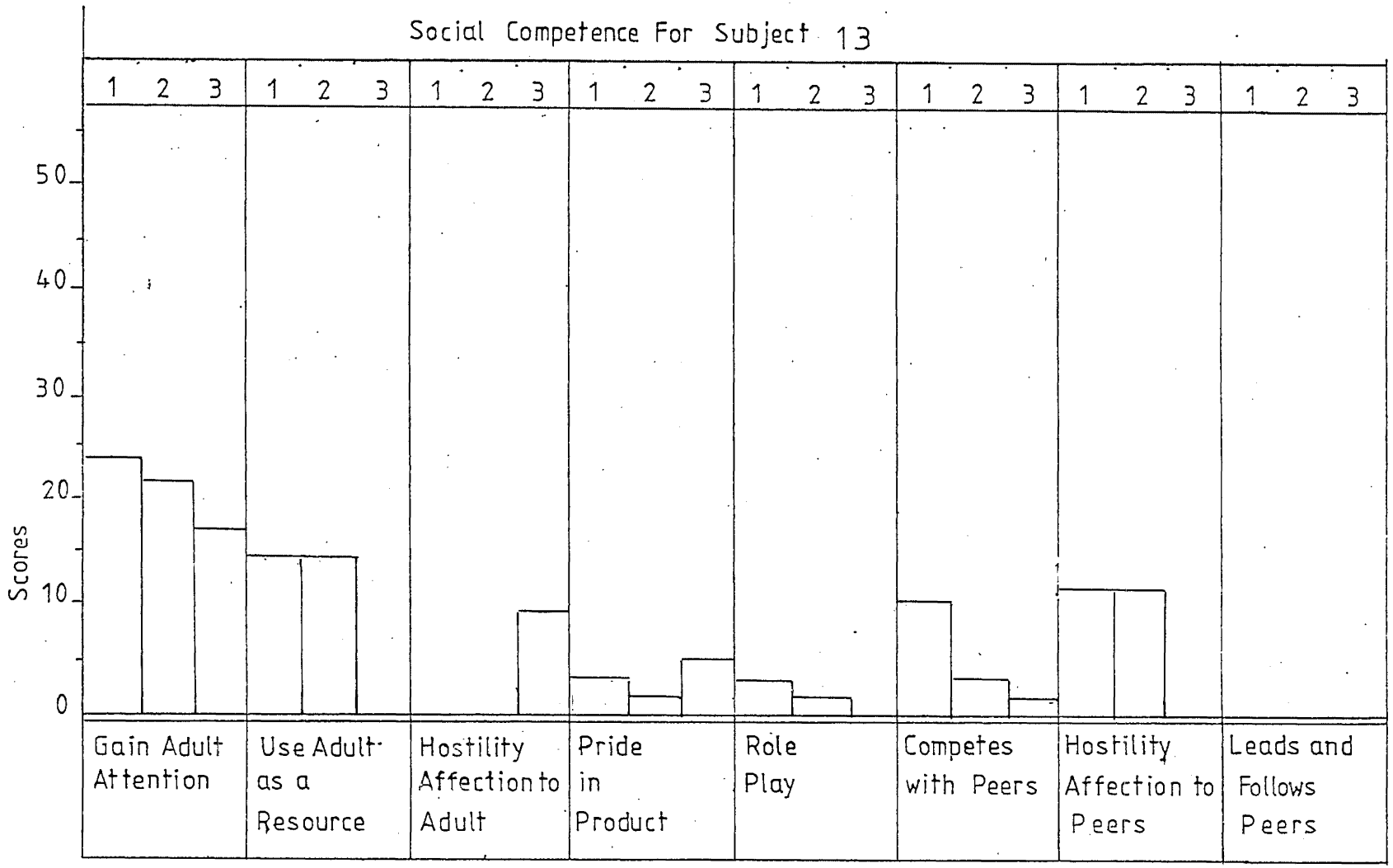

Social Competence For Subject 4
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

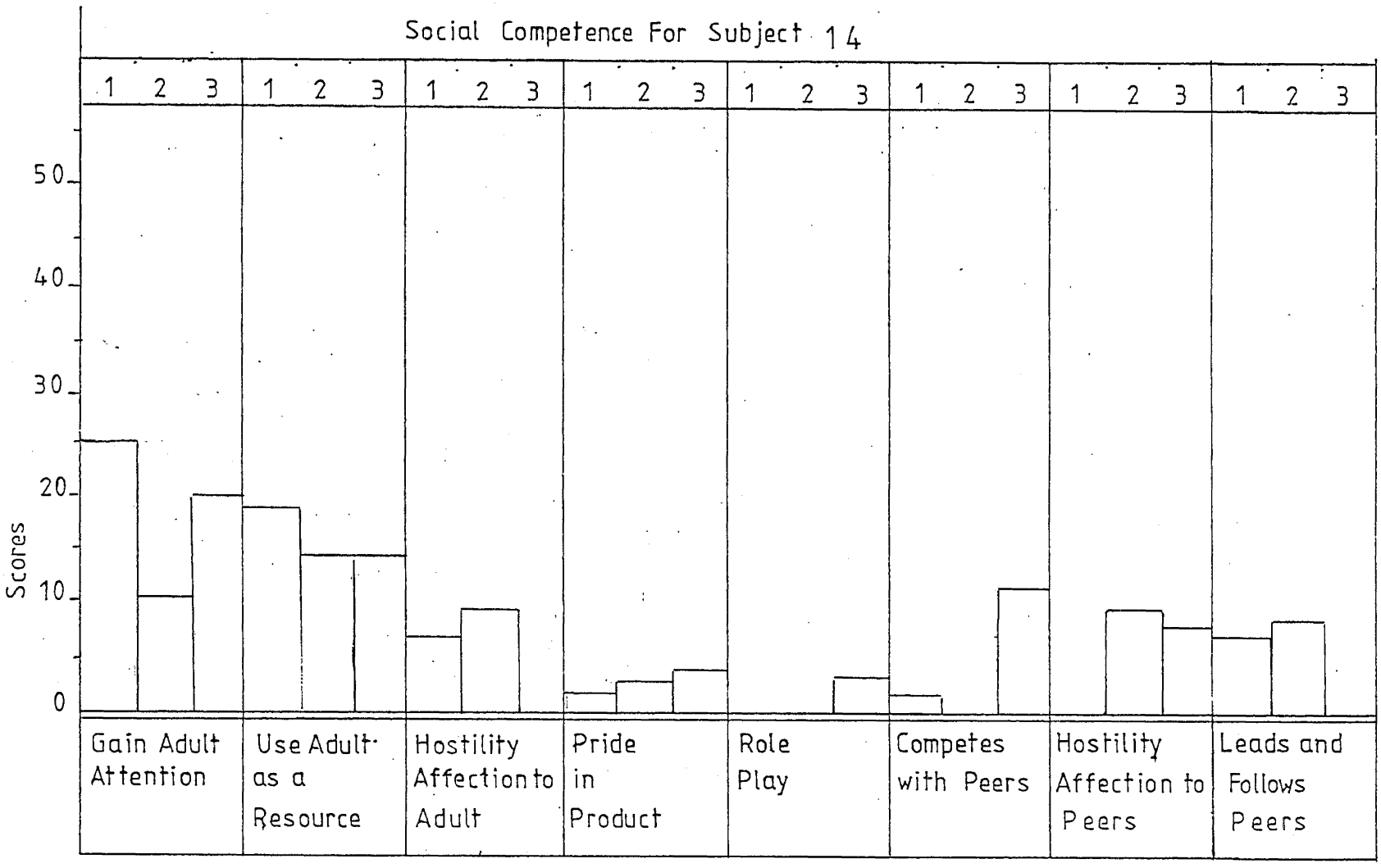

Social Competence For Subject 9
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

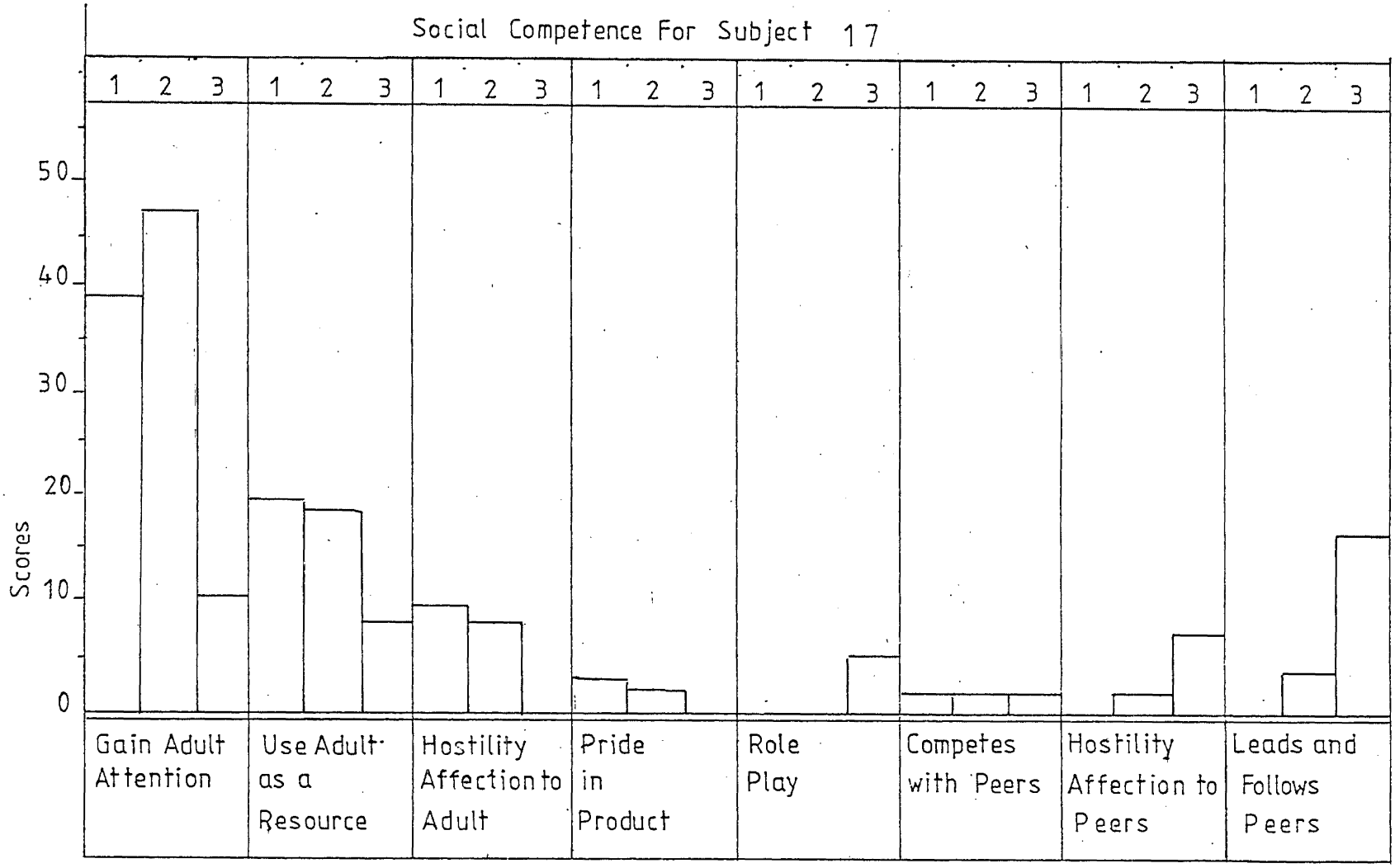

Social Competence For Subject 10
Scores
0
10
20
30
40
50
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

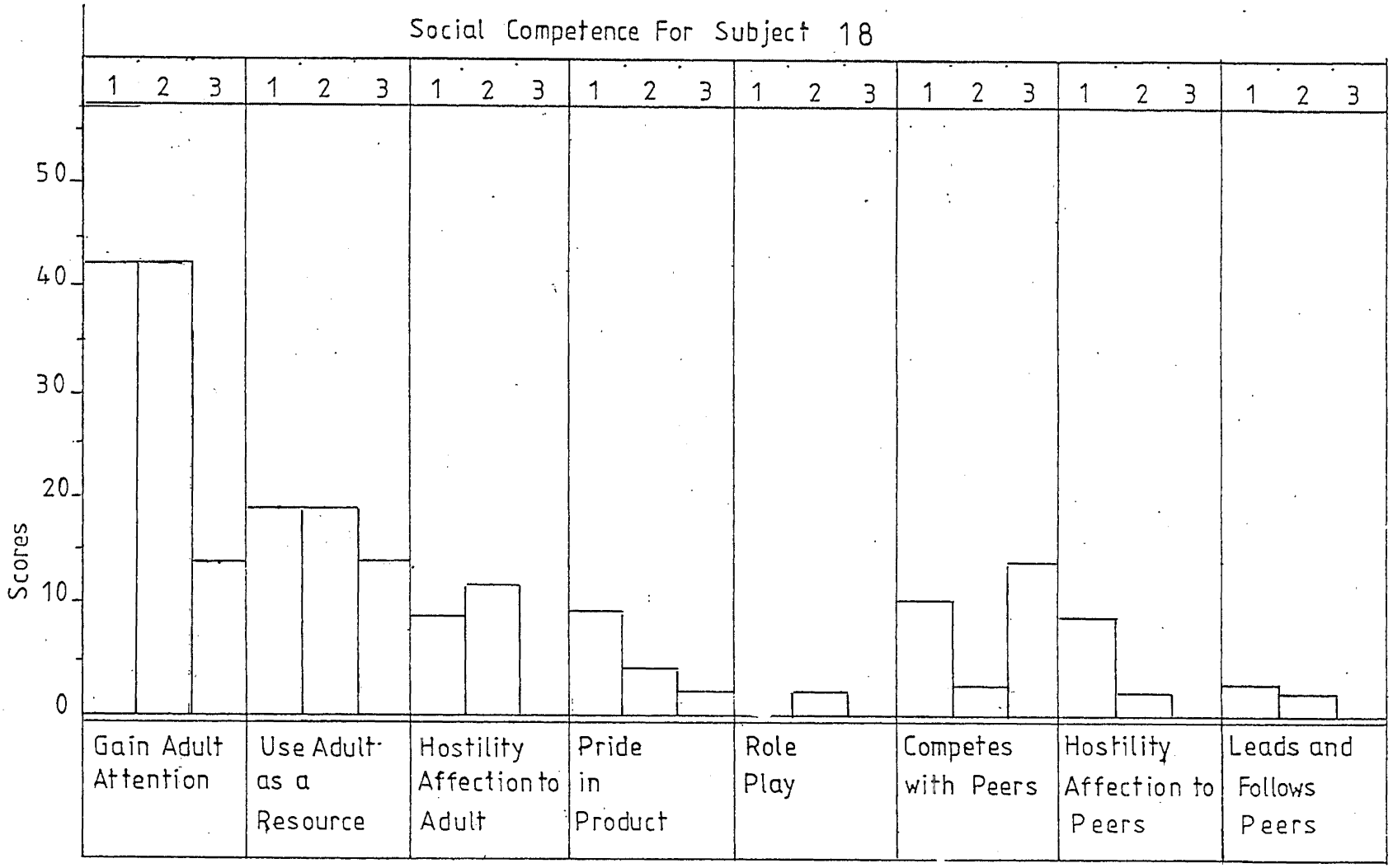

Social Competence For Subject 11
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

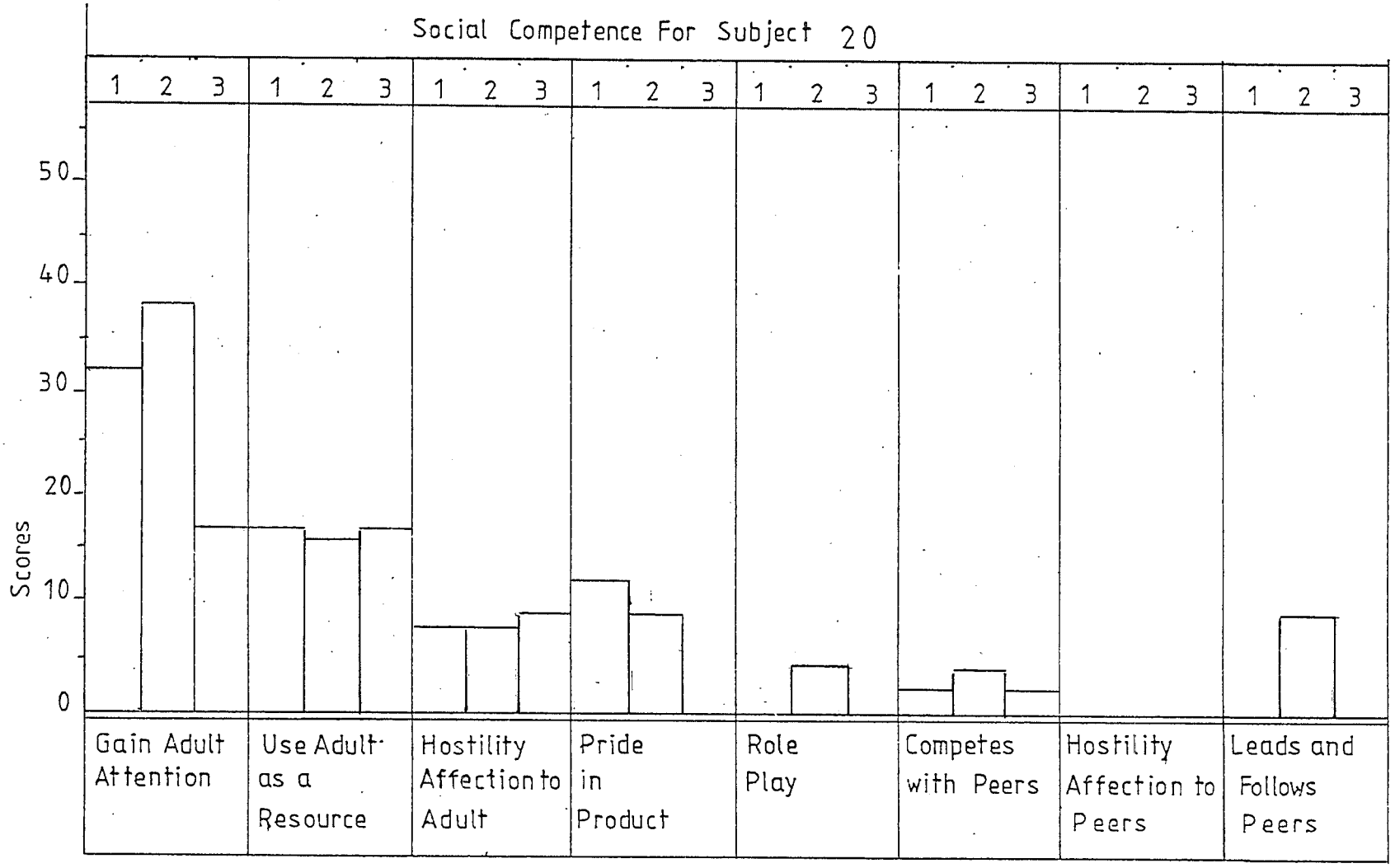

Social Competence For Subject 12
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

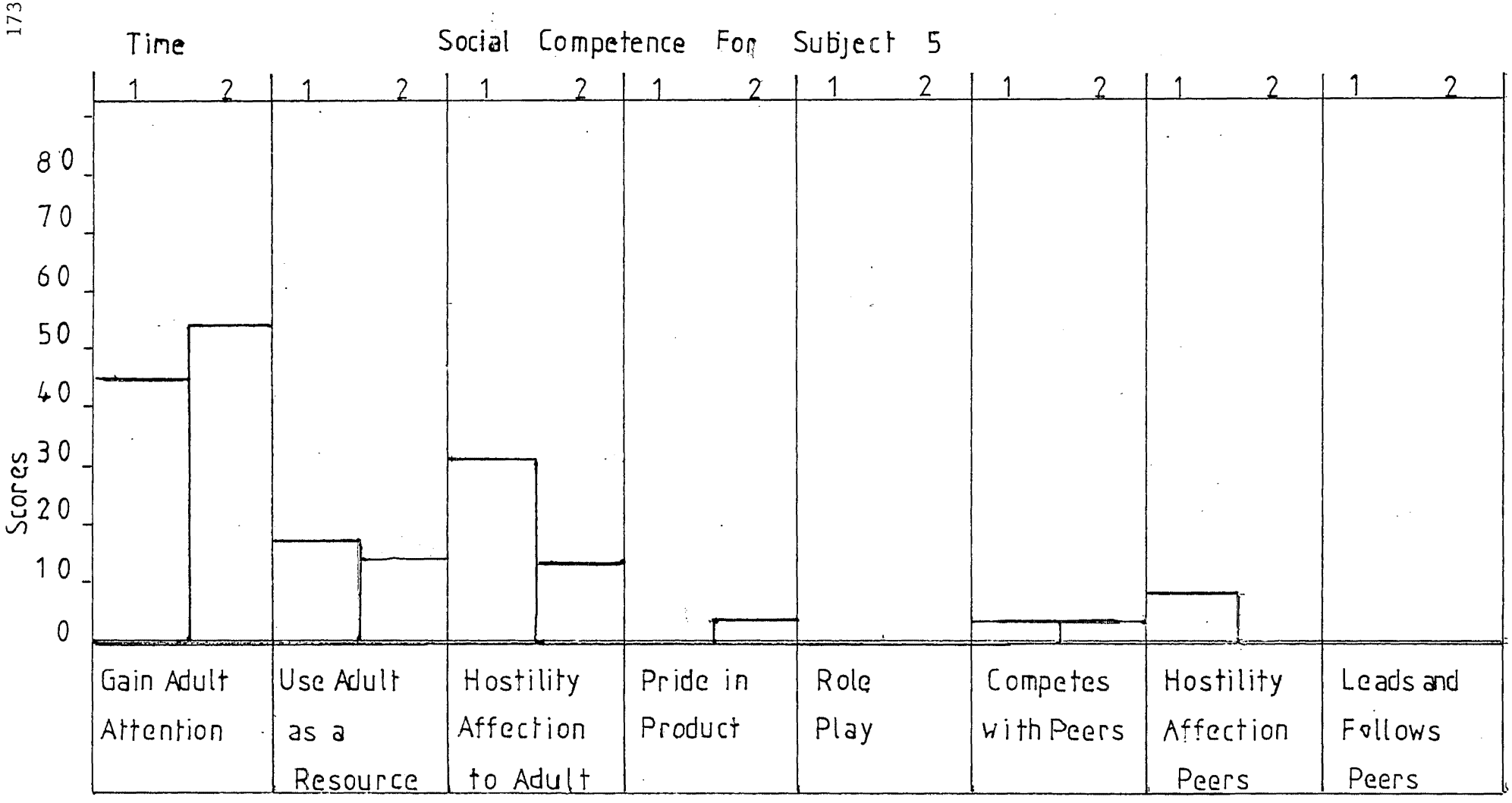

Social Competence For Subject 13
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

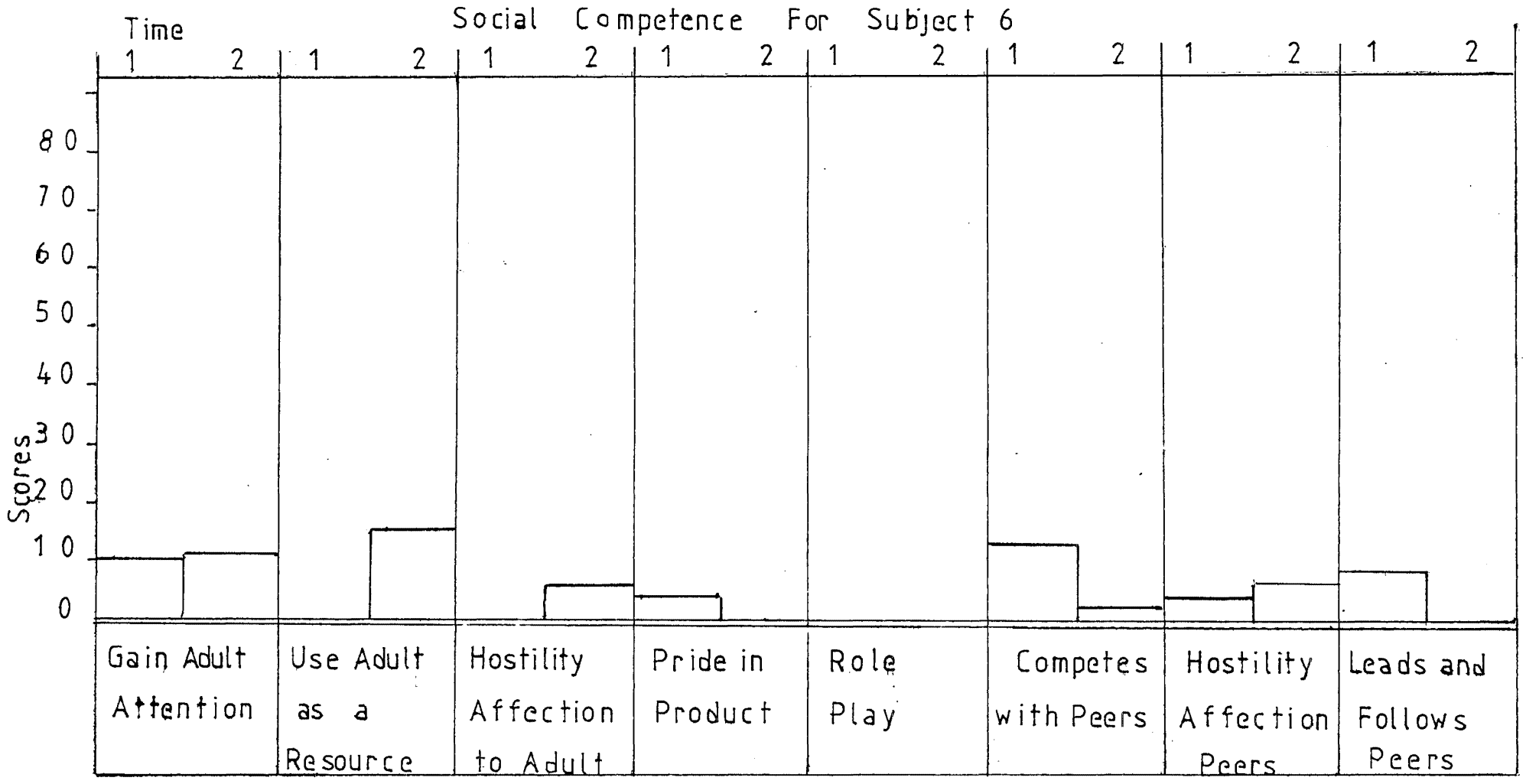

Social Competence For Subject 14
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

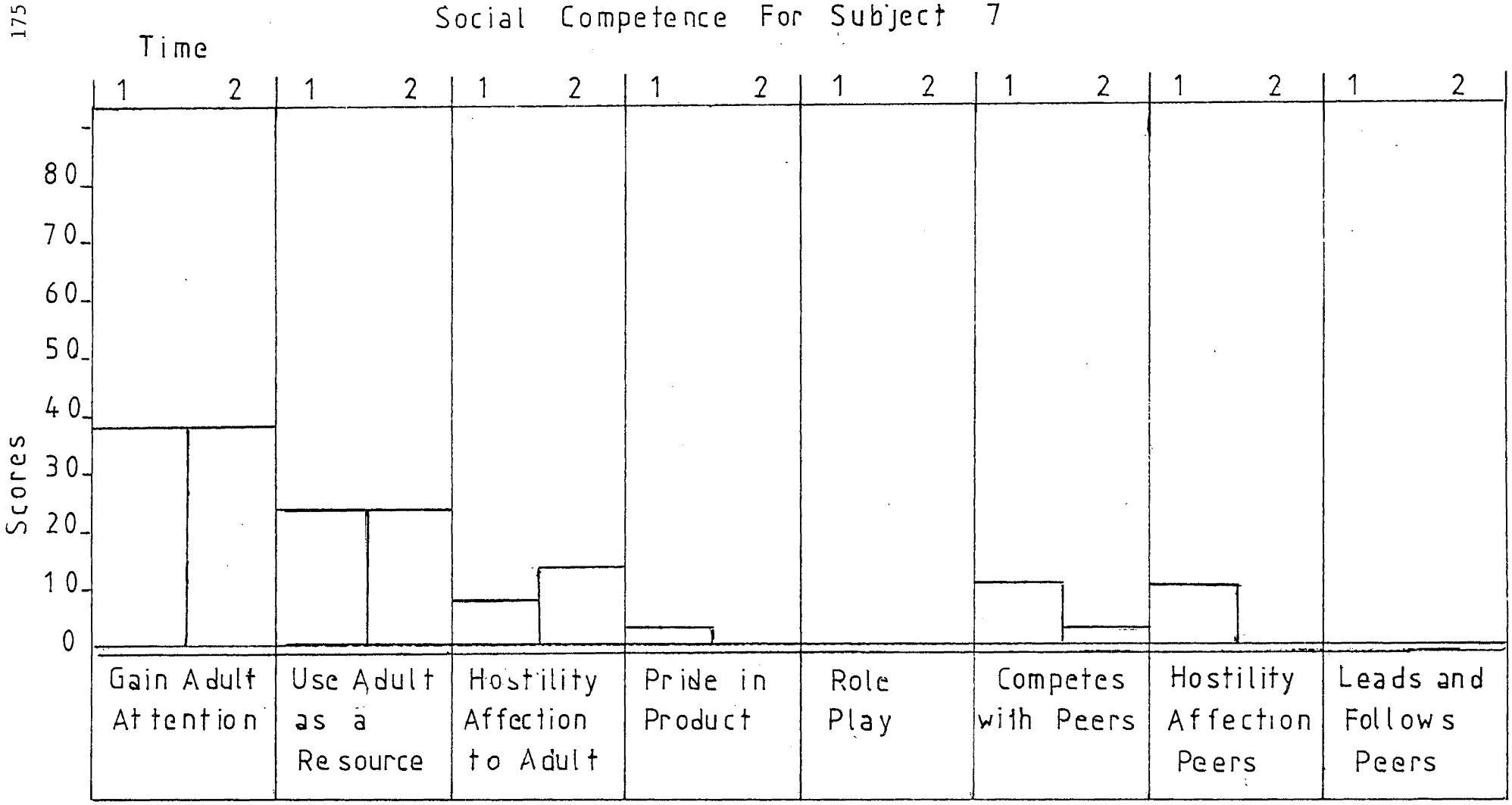

Social Competence For Subject 17
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

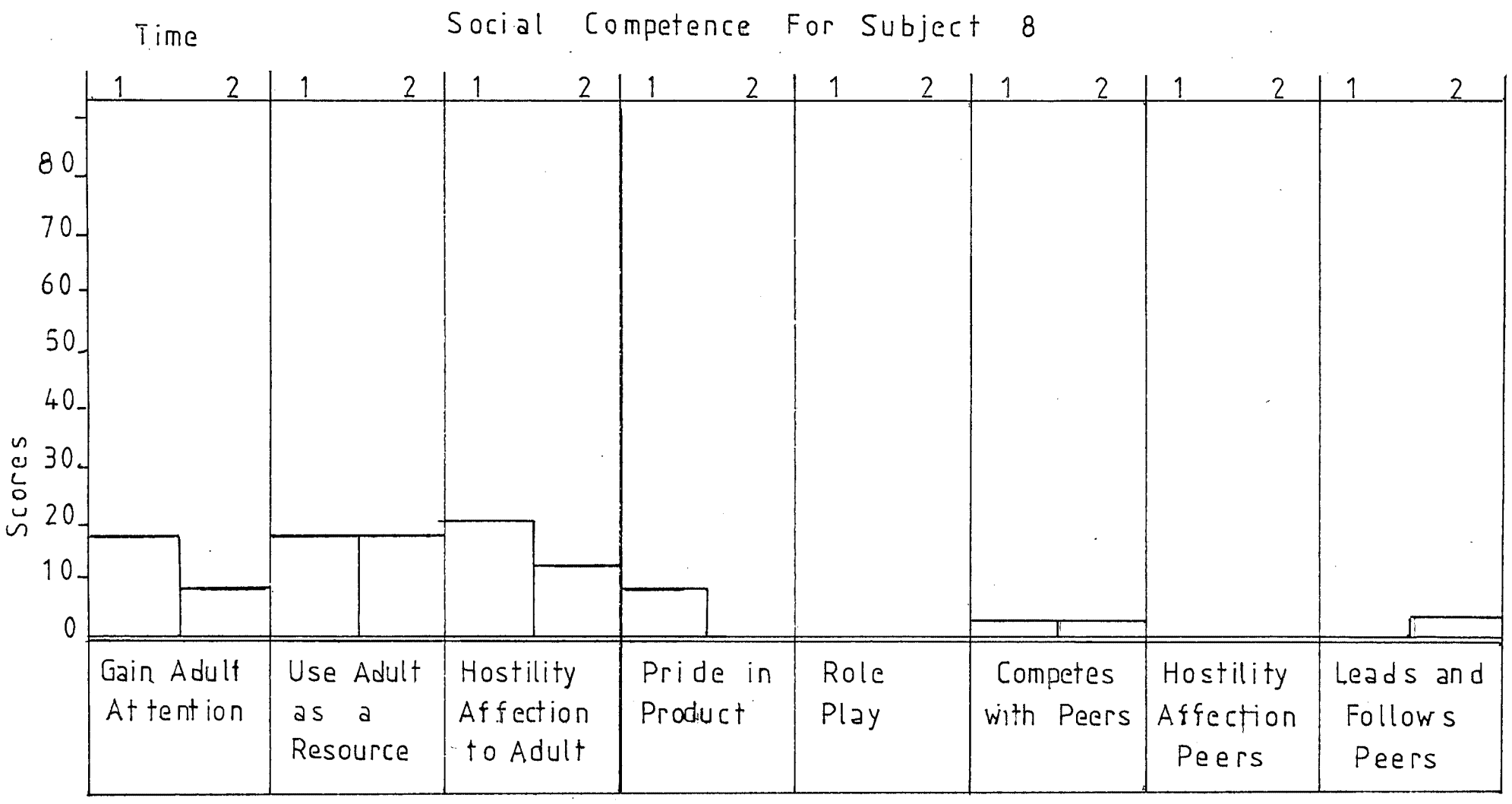

Social Competence For Subject 18
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
Scores
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers

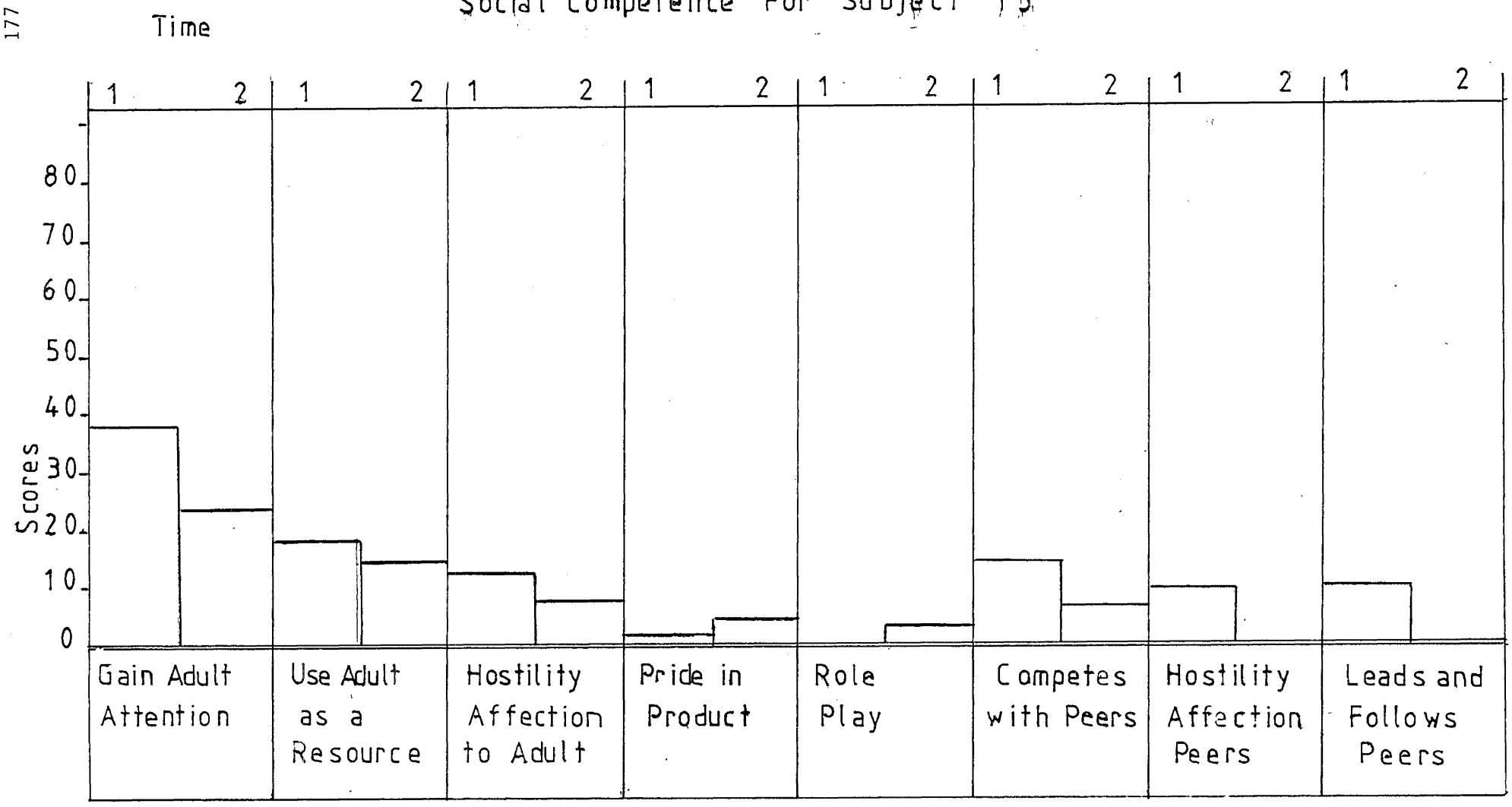

Social Competence For Subject 20
1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3
Scores
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection to Peers
Leads and Follows Peers


Time
Social Competence For Subject 5
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
80
70
60
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers

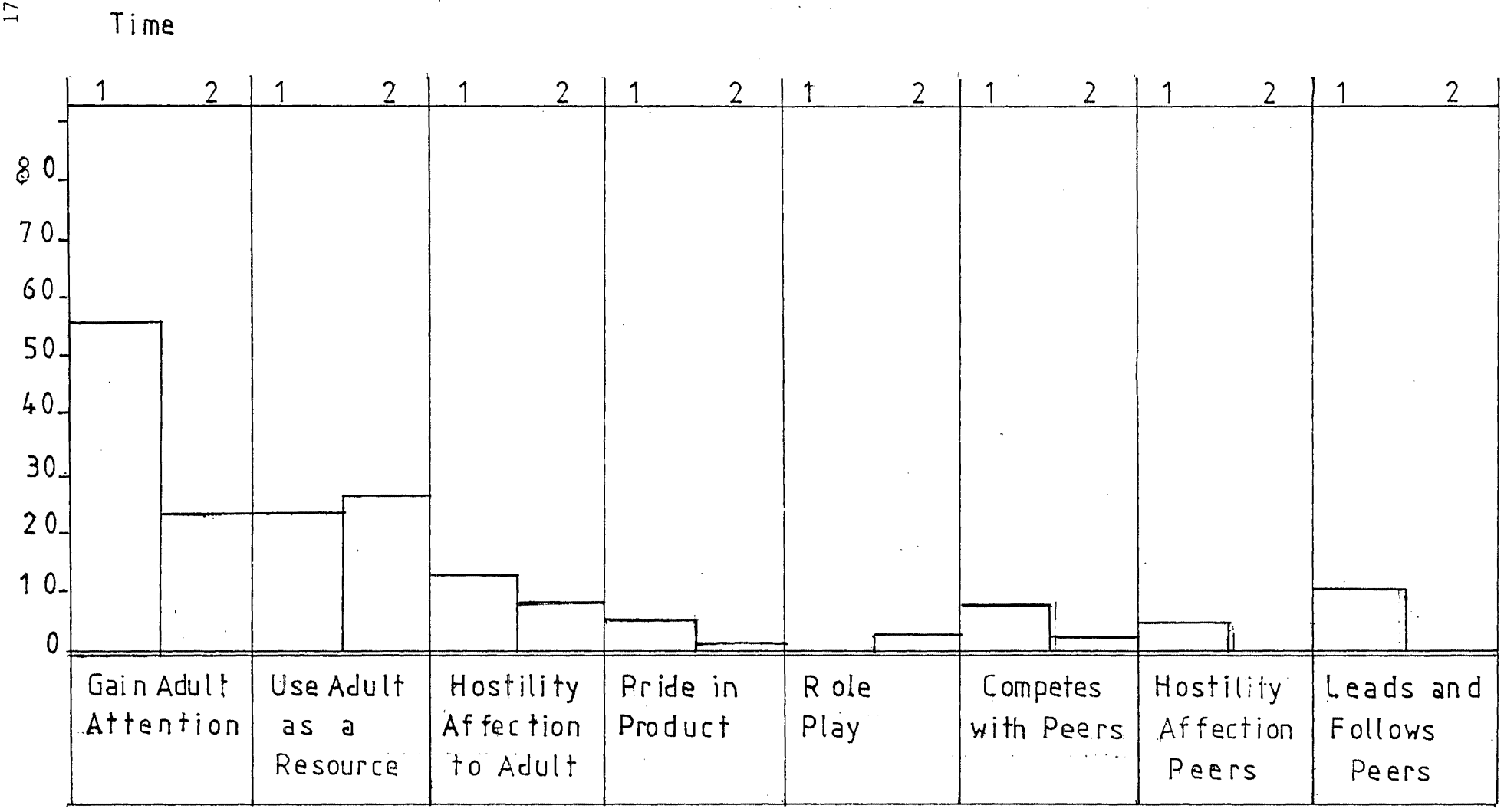

Social Competence For Subject 6
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
80
70
60
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers


Social Competence For Subject 7
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Scores
80
70
60
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers

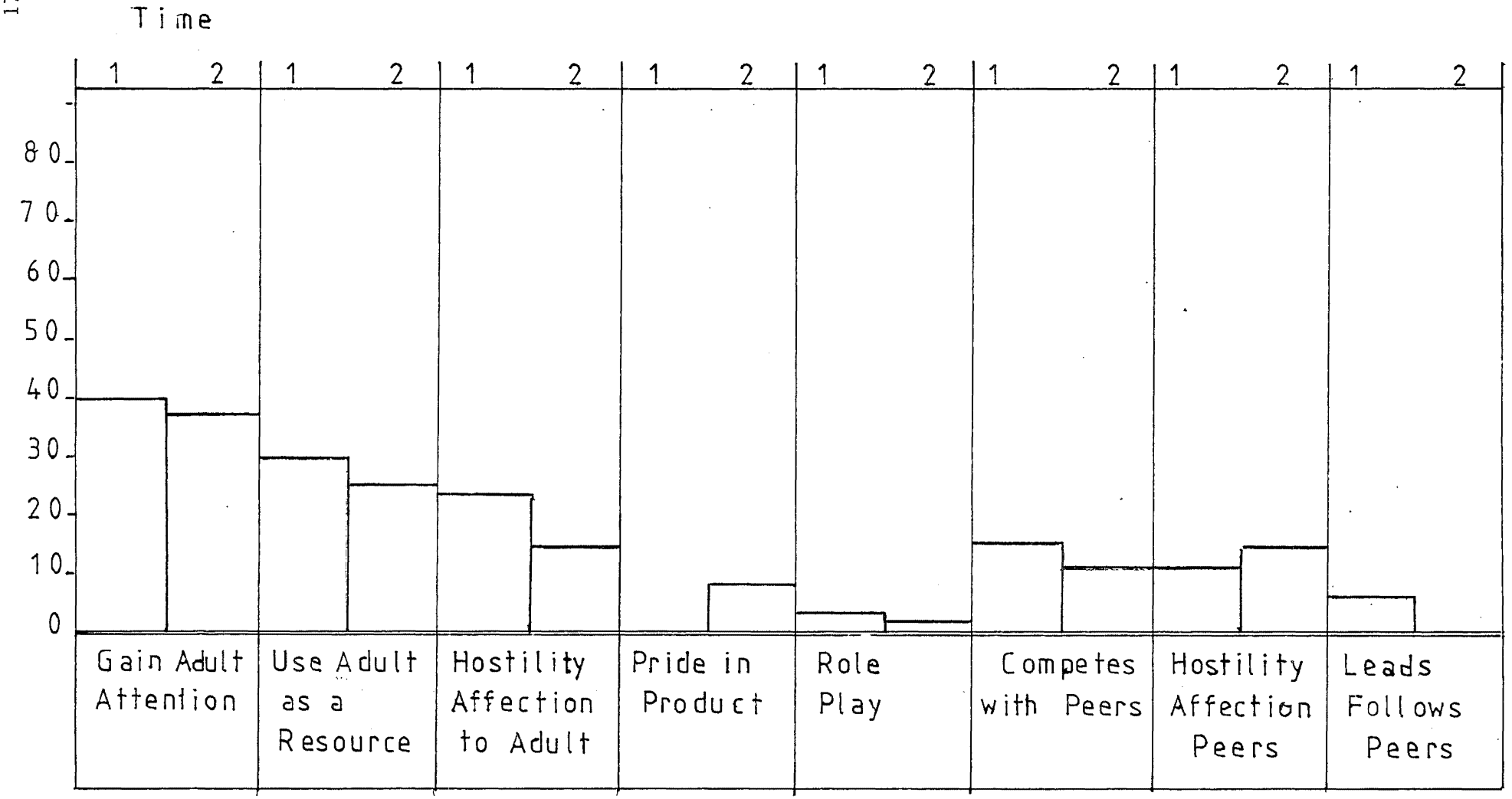

Social Competence For Subject 8
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Scores
80
70
60
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers

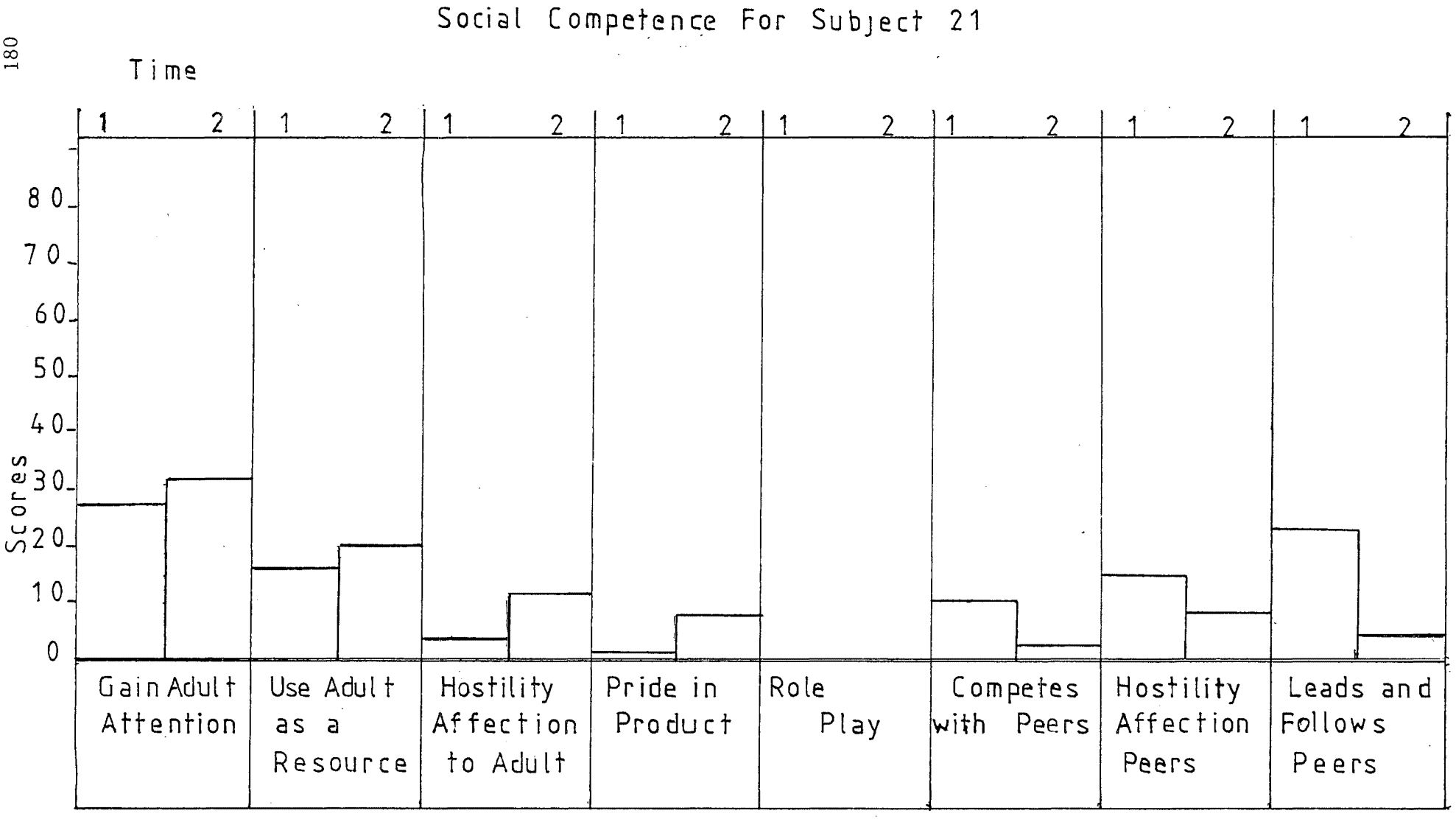

Social Competence For Subject 15
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Scores
80
70
60
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers

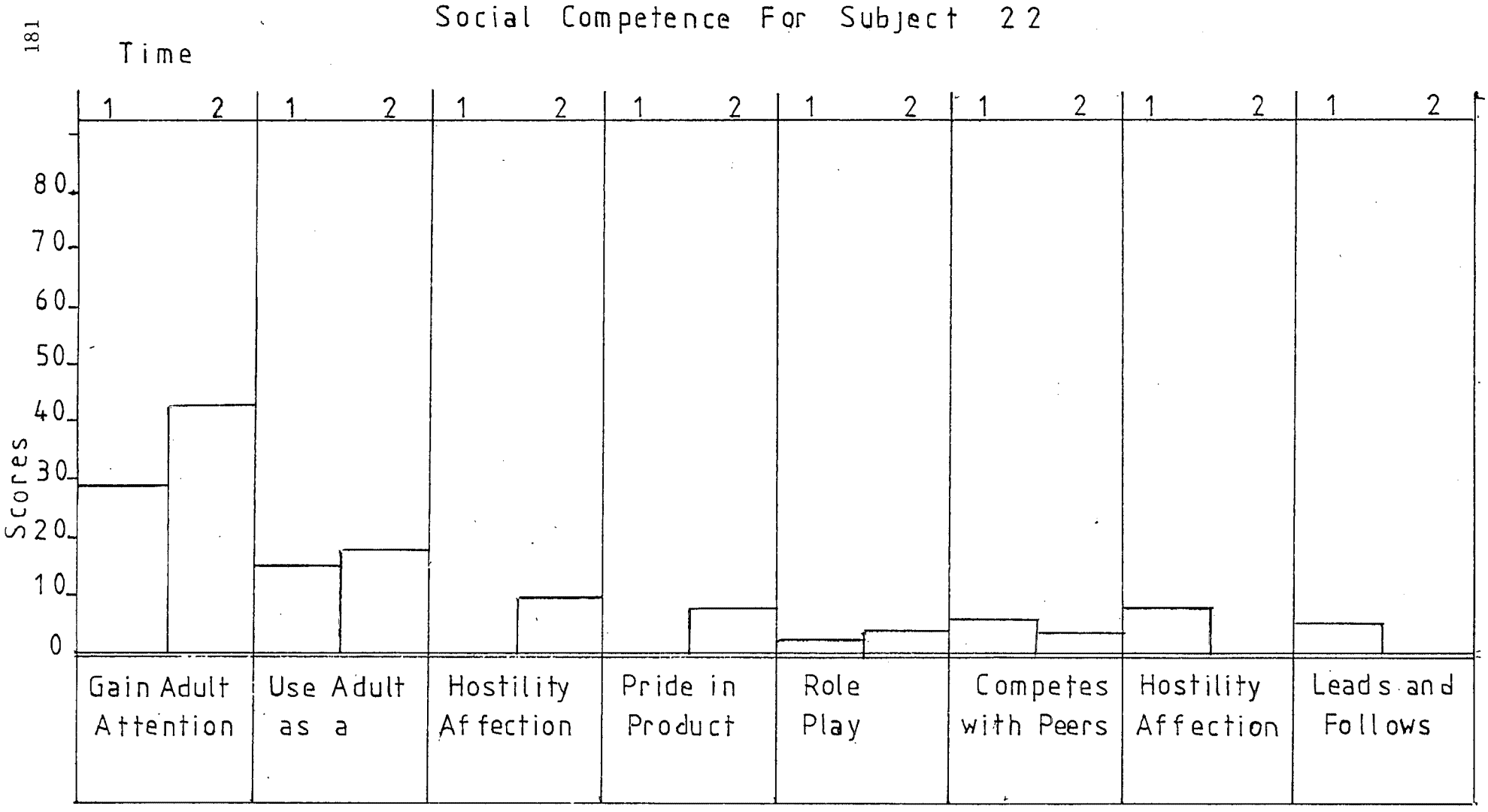
Social Competence For Subject 16

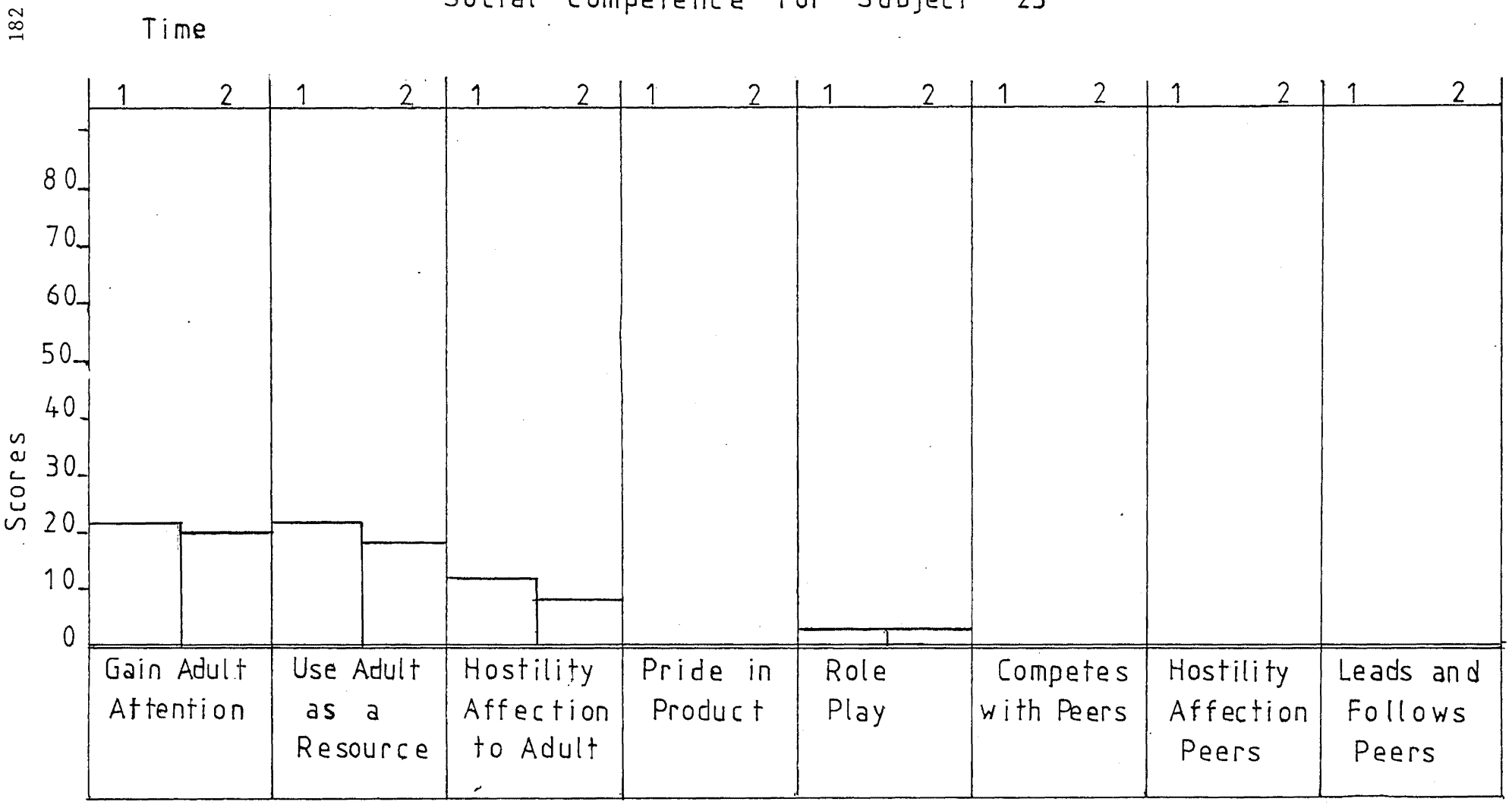


Social Competence For Subject 19




Social Competence For Subject 21
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
80
70
60
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers


Social Competence For Subject 22
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
80
70
60
50
40
30
20
10
0
Scores
Gain Adult Attention
Use Adult as a
Hostility Affection
Pride in Product
Role Play
Competes with Peers
Hostility Affection
Leads and Follows


Social Competence For Subject 23
Time
1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
Scores
80
70
60
50
40
30
20
10
0
Gain Adult Attention
Use Adult as a Resource
Hostility Affection to Adult
Pride in Product
Role Play
Competes with Peers
Hostility Affection Peers
Leads and Follows Peers

APPENDIX C

UNIVERSITY OF CANTERBURY DEPARTMENT OF PSYCHOLOGY

CHECKLIST FOR HOME VISIT

Child's name: _____

Sex: _____ Age: _____ Brothers: (age) _____ Sisters: (age) _____

Parents' Occupation	Mother's Education				Age			
	1	2	3	4	1	2	3	4
Father _____								
Mother _____								

Education: 1 - less than 4 years secondary
2 - 4 or more years secondary
3 - Tertiary education other than university
4 - University.

Age: 1. Under 25 2. 25-30 3. 31-36 4. Over 36.

1. Are there other young children in the neighbourhood?

If so, are they	older	
	younger	
	same age	
	all	

2. Has your child ever attended a play group?

If so, for how long? _____

3. Who is the principal caregiver?

Mother	
Father	
Child care	
Other	

4. Why did you choose Play Centre rather than any other preschool?

Closer to home	☐
Better programme	☐
No alternative	☐
Another reason (specify)	☐

_____

_____

5. What do you see as being the main purpose of a preschool? (tick more than one box)

To provide child with social contacts	☐
To privide caregiver relief	☐
To provide intellectual stimulation	☐
To prepare the child for school	☐
Other (specify)	☐

_____

_____

6. How do you think your child will COPE with these aspects of being at Play Centre?

(a) Being away from caregiver

Easily ☐ May be difficult ☐ Uncertain ☐

(b) Relating to other children, e.g. playing, sharing

Easily ☐ May be difficult ☐ Uncertain ☐

(c) Gaining the supervisor's attention

Easily ☐ May be difficult ☐ Uncertain ☐

7. In what way do you think your child will benefit from attending Play Centre?

_____

_____

University of Canterbury Christchurch 1 New Zealand
Department of Psychology

Dear

I am planning a study of the reactions of children to their first experiences of preschool education as part of an M.A. degree in Psychology at Canterbury University. The Play Centre Association endorses this work and has agreed to me approaching a number of parents whose children are already on their waiting lists.

Involvement in the study would include an introductory home visit, a half hour family observation and short questionnaire in the home prior to your child starting Play Centre, a further half hour family observation and questionnaire after your child has been at Play Centre for two months, and a half hour observation in Play Centre. My interest is in learning more about the behaviour of normal children in naturalistic settings and your child will not be expected to take part in any experimental situation. You are assured of strict confidentiality being observed throughout the study.

If you are willing to help please complete the section at the bottom of the page. If you require further information I can be contacted at 528-940 in the evenings (after 5p.m.).

Yours sincerely,

Nona Milburn

Nona Milburn.

As Mrs Milburn's supervisor I give my approval to this research.

K.T. Strongman

K.T. Strongman, Ph.D.,
Professor of Psychology

TEAR OFF

Name : _____ Phone No. _____

Address : _____

Child's Name _____ Age : _____ years _____ months

Position in Family: _____

On Waiting List for _____ Play Centre

Date expected to commence at Play Centre _____

APPENDIX C
CHECKLIST FOR SCORING SOCIAL BEHAVIOR

Name_____ Date and Time_____

Code #_____ Age_____ Place of Obs._____ Observer_____

A. Categories for Interaction Between Child and Adult

1. Attention of Adult—Positive
(Examples of behavior to be scored: Moves toward and stands or sits near A; touches A; calls to A; shows something to A; tells something to A)

Successful	Unsuccessful
A1 10	A2 12

2. Attention of Adult—Negative
(Shows offs; misbehaves)

Successful	Unsuccessful
A3 14	A4 16

3. Uses Adult as a Resource—Instrumental
(Seeks explanation or information; seeks A's judgment in peer dispute; seeks A's help with clothing, equipment, or food)

Successful	Unsuccessful
A5 18	A6 20

4. Uses Adult as a Resource—Emotional
(Seeks comforting; seeks reassurance)

Successful	Unsuccessful
A7 22	A8 24

5. Controls Adult—Positive, Neutral, or Negative
(Directs A in a positive, neutral, or negative manner)

Successful	Unsuccessful
A9 26	A10 28

6. Compliance with Adult's Directives
(Readily follows A's directives)

A11 30

7. Noncompliance with Adult's Directives
(Resists either verbally or physically; disobeys, ignores)

A12 32

8. Expresses Affection to Adult
(Verbal affection: smiles, laughs, makes friendly statement; physical affection: touches, hugs, shares, makes friendly gesture)

A13 34

9. Expresses Hostility to Adult
(Verbal: rejections or expressions of dislike, physical: hits, grabs, throws object, tantrum, rejects physical affection)

Verbal	Physical
A14 36	A15 38

10. Imitation of Adult
(Direct imitation of A's statement or action)

Verbal	Physical	Unspecif.
A16 40	A17 42	A18 44

11. Pride in Product—Creation
(Expresses pride in a creation S has completed to self, peer, or adult)

A19 46

12. Pride in Attribute
(Expresses pride in possessions or actions; boasting)

A20 48

13. Adult Role Play
(Dresses up like adult; plays adult role; expresses desire to grow up)

A21 50

14. Child Role Play
(Plays immature role; expresses desire to remain a child)

A22 Constant 52

Note: Please list comments about this subject on reverse side.

CHECKLIST FOR SCORING SOCIAL BEHAVIOR (continued)

B. Categories for Interaction Between Peers

1. Attention of Peer
(Moves toward and stands or sits near P; touches P; calls to P; shows something to P; tells something to P; shows off)

Successful	Unsuccessful
B1 10	B2 12

2. Uses Peer as a Resource—Instrumental
(Seeks explanation or information; seeks P's help with clothing or equipment)

Successful	Unsuccessful
B3 14	B4 16

3. Leads in Peer Activities—Positive or Neutral
(Directs P in a positive or neutral manner)

Successful	Unsuccessful
B5 18	B6 20

4. Leads in Peer Activities—Negative
(Directs P in a negative manner)

Successful	Unsuccessful
B7 22	B8 24

5. Serves as a Model for Peer
(Situations where S is copied by P without having given P any directions to do so)

B9 26

6. Follows Lead of Peers—Peer gives S Verbal Directions
(Follows P in what to do or how to do something; follows but modifies peer's directions)

B10 28

7. Follows Lead of Peers — Peer gives No Verbal Directions
(Involved observation; verbally supports peer's statement; follows peer around; joins peer or group engaged in specific activity)

B11 30

8. Refuses to Follow Peer's Directions
(Resists, refuses, disobeys, or ignores peer's directions)

B12 32

9. Imitation of Peer
(Repeats sound or action of peer—e.g., word, phrase, sentence, gesture, sequence of behavior in game, etc.)

WHO		WHAT
B13	34	FV
B14	36	FP
B15	38	MV
B16	40	MP

10. Expresses Affection to Peer
(Verbal: smiles, laughs, makes friendly statement; physical: touches, hugs, offers help or sharing)

B17 42

11. Expresses Hostility to Peers
(Verbal: hostile or resistant statements; physical: hits, grabs, spits, physically disrupts peer's activity (equipment), refuses to share, rejects physical affection)

VERBAL	PHYSICAL
B18 44	B19 46

12. Competes with Peer for Adult's Attention
(Talks about materials or peers in which A is showing an interest; tries to be picked by A for a specific task)

Successful	Unsuccessful
B20 48	B21 50

13. Competes with Peer for Equipment
(Verbal or physical competition over classroom objects or equipment)

Successful	Unsuccessful
B22 52	B23 54

APPENDIX C

COMPETENCE FACTORS

For Col. # headings, see Social Behavior Checklist numbers entered in boxes on following page)

Subject: _____ Age: _____ Cycle: _____

Type A (Col 9 = 0 or blank)	Type B (Col 9 = 1, 2, 3, 4, 5)
Col: 10 12 14 16 18 20 22 24 34 36 38 46	Col: 18 20 22 24 28 30 42 44 46 48 50
Total _ _ _ _ _ _ _ _ _ _ _ _	Total _ _ _ _ _ _ _ _ _ _ _
Col: 48 50	Col: 52 54
Total. _ _	Total _ _
10 ⇨ _____	18 + 20 + 28 + 30 ⇨ _____
if 10 > 12, 2 ⇨ _____	if 18 + 22 > 20 + 24, 2 ⇨ _____
10/12 > ⇨ 0>_____>5	18 + 22/20 + 24 ⇨ 0>_____>5
if 10 + 12 > 14 + 16, 2 ⇨ _____	if 18 + 20 + 22 + 24 > 28 + 30, 2 ⇩ _____
10 + 12/14 + 16 ⇨ 0>_____>5	
A = Attention of Adult _____	LF = Leading and Following Peers and Children _____
18 + 22 ⇨ _____	42 ⇨ _____
18 > 20, 2 ⇨ _____	if 42 – 44 – 46 > 0, 44 + 46 ⇩ _____
18/20 ⇨ 0>_____>5	if 44 + 46 > 2, 2 ⇨ _____
if 20 > 24, 2 ⇨ _____	42/44 + 46 ⇨ 0>_____>5
18 + 20/22 + 24 ⇨ 0>_____>5	RP = Expression of Affection and Hostility to Peers and Children
R = Using Adult as a Resource _____	48 + 52 ⇨ _____
34 ⇨ _____	48 + 52/50 + 54 ⇨ 0>_____>5
if 34 – 36 – 38 > 0, 36 + 38 ⇨ _____	C = Competition with Peers and Children _____
if 36 + 38 > 2, 2 ⇨ _____	
34/36 + 38 ⇨ 0>_____>5	
RA = Expression of Affection and Hostility to Adults _____	
PP = 46 + 48 _____	
PP = Pride in Product	
RP = 50 _____	
RP = Role Play	

	A	R	HA	RP	PP	HP	LF	C	Competence
RAW	___	___	___	___	___	___	___	___ =	_____
Weight	___	___	___	___	___	___	___	___	_____
Corrected	___	___	___	___	___	___	___	___ =	_____

COMPETENCE FACTORS

Key:
- A1 = Adult Attention (A1-4)
- A2 = Adult as a Resource (A5-8)
- A3 = Affection and Hostility to Adult (A13-15)
- A4 = Pride in Product (A19-20)
- A5 = Role Play (A20-22)
- A6 = Leading and Following Peers (B5-11)
- A7 = Affection and Hostility to Peers (B12-19)
- A8 = Competition with Peers (B20-23)

HOME OBSERVATIONS

1. All the family members to be present, if possible
2. No visitors
3. The family is limited to two rooms
4. Observers will wait only for 10 minutes for everyone to be present
5. No telephone calls out - answer calls briefly
6. No T.V.
7. No talking by family to observers while coding

RATING SCALE I: DISTAL ADULT EFFECTS (Preliminary Form)

A. Design of the home

1. Procurement of materials for the subject's use

1	2	3	4	5	0
grossly suitable		average		grossly unsuitable	no basis for rating

Comments: _____

_____

2. Safety precautions (safety to child)

1	2	3	4	5	0
excellent	above average	average	below average	grossly inadequate	no basis for rating

Comments: _____

_____

3. Child-proofing (protection of breakables; avoiding destruction and unnecessary extra work)

1	2	3	4	5	0
maximal child-proofing—maximal access		minimal child-proofing—maximal access		maximal child-proofing—minimal access	no basis for rating

Comments: _____

_____

4. Accessibility to living area

1	2	3	4	5	0
maximum	most of home	average	very little	minimum	no basis for rating

Comments: _____

_____

B. Adult effects

1. Adult's availability to the subject

1	2	3	4	5	0
maximum	above average	average	below average	minimum	no basis for rating

Comments: _____

_____

2. Adult's scheduling of daily activities which are likely to enhance or inhibit development

1	2	3	4	5	0
maximum	above average	average	below average	minimum	no basis for rating

Comments: _____

_____